RIKINotes 2023

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Contents

1. 2023

1.1 January

1.1.1 The New Normal for Early Care and Education (2023-01-01 12:41)

As we begin a new year and reflect on where early care and education (ECE) is headed, we may need to acknowledge a new normal for the field. I am sure many of my colleagues in ECE will not be happy with what I am about to share but I have always been driven by empirical data and this is what I am observing in the ECE field at this point.

We are all disappointed with the lack of action at the federal level to revamp the ECE system into a much improved and enhanced system. The opportunity was there at the beginning of the pandemic and there was a great deal of debate and discussion but it led nowhere. We are left with an ECE system having difficulty in finding adequately trained staff on a daily basis. If anything, the ECE field looks worse today then it did three years ago and that is saying alot.

So what can we do? I would suggest that we go back to the basics. The original philosophy of licensing and regulatory science is "do no harm", let's begin there. We need to make sure that all our children are in healthy and safe environments. We need to revisit the child care trilemma and focus on the availability and affordability side of the equation and put quality on the back burner again. I hate suggesting this but we have no other choice at this point or the system is going to implode. We need to make certain that our children do not lose any additional ground which has been so evident during the pandemic.

Once we have re-established a solid base, then and only then, we can begin to address quality of services via regulatory science, quality rating and improvement systems, and professional development of ECE staff: an Early Childhood Program Quality Improvement and Indicator Model. We do have several excellent examples that I have had the fortune to be part of which should provide some guidance, such as broader adoption of *Caring for Our Children Basics* as the core set of rules/regulations/standards for the ECE profession. Full implementation of the new Head Start Monitoring System and the full roll out of the iLookOut Learning Platform for ECE staff.

1.1.2 Revision/Updating the Regulatory Compliance Key Indicator Metric (Fiene, 2023) (2023-01-08 13:05)

Over the past decade in utilizing the Regulatory Compliance Key Indicator Metric (RCKIm) it has become very clear that false negatives needed to be controlled for because of their potential to increase morbidity and mortality. When dealing with regulatory compliance and full compliance as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIM)(see matrix below), false negatives could be either eliminated or reduced to the point of no concern.

However, in the event that substantial compliance rather than full compliance is used as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIM) this becomes a problem again. There is the need to introduce a weighting factor.

In utilizing the RCKIm, the following equation/algorithm is used to produce the Fiene Coefficient (FC):

FC = ((A)(D)) - ((B)(C)) / sqrt (WXYZ)

This RCKIm needs to be revised/updated to the following in order to take into account the need to again eliminate false negatives being generated by the results of the equation/algorithm; this can be accomplished by cubing B:

FC* = ((A)(D)) - ((B^3)(C)) / sqrt (WXYZ)

By this simple adjustment to cube (B) it will basically eliminate the use of any results in which a false negative occurs when substantial compliance is determined. The table below displays the variables of the Regulatory Compliance Key Indicator Matrix (RCKIM).

RCKIM High RC Group RC Low Group Totals
KI In Compliance A B^3 Y
KI Out of Compliance C D Z
Totals W X
Regulatory Compliance Key Indicator Matrix (RCKIM)

In the above examples, FC can be used when the High RC Group is at full regulatory compliance, but FC* needs to be used when the High RC Group is including substantial as well as full regulatory compliance. By using both equations/algorithms, it better deals with the results of the Regulatory Compliance Theory of Diminishing Returns.

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The results should clearly show that only positive (+) coefficients will become Regulatory Compliance Key Indicators versus those rules that do not show any relationship to overall regulatory compliance (0), but now the negative (-) coefficients will more clearly show when any false negatives appear and clearly not include them as Regulatory Compliance Key Indicators. This is a major improvement in the Regulatory Compliance Key Indicator methodology which clearly demonstrates the differences in the results. It provides a gateway in those regulatory compliance data distributions where substantial regulatory compliance is heavily present while full regulatory compliance is not. This could become a problem as the regulatory science field moves forward with the use of the Regulatory Compliance Theory of Diminishing Returns. Below are some data displays to support this revision/update.

[1]RCKIM-RCKIm FC7[2]Download

1. `https://drfiene.files.wordpress.com/2023/01/rckim-rckim-fc7.pdf`
2. `https://drfiene.files.wordpress.com/2023/01/rckim-rckim-fc7.pdf`

1.1.3 The Key Elements for a High Quality Early Care and Education Program (2023-01-16 23:27)

Here are key elements that should be present in a high quality early care and education (ECE) program that any parent should be looking for when selecting their child care arrangement:

- Qualified ECE teachers.

- There is a stimulating and dynamic classroom environment where children are viewed as competent learners.

- A developmentally appropriate curriculum is used based upon the assessed individual needs of children.

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- Opportunities for families and staff to get to know each other.

- Families receive information on their children's progress regularly using a formal process.

- Early childhood educators encourage children to communicate.

- Early childhood educators encourage children to develop reasoning skills.

- Early childhood educators listen attentively when children speak.

- Early childhood educators speak warmly to children.

1.1.4 Licensing Measurement, Regulatory Compliance, Regulatory Science Resources (2023-01-28 11:55)

For those licensing and regulatory administrators, researchers, scientists, below are attached several publications that should be helpful in learning more about human services licensing measurement, regulatory compliance and regulatory science applied to the human services.

There are five resources: 1) A short and concise ebook that gives an overall view of licensing measurement and monitoring systems. 2) An anthology of research articles which provide much of the background, research, and theory behind the early childhood program quality improvement and indicator model consisting of regulatory compliance, quality initiatives, and professional development. 3) A book that compiles many of the state reports written on the differential monitoring approach and its associated methodologies. 4) The lecture slides with notes which provide the overview and an in-depth review of the model and theory. 5) And lastly, the research notes that have been written over the past decade making refinements and updating the theory, model, approach, and methodologies.

[1]1eHandBook-key indicator[2]Download

[3]2ECPQIM Articles[4]Download

[5]3riki-book-of-readings-3rd-edition 2023[6]Download

[7]4licensing measurement webinar slides[8]Download

[9]5Research Notes[10]Download

[11]

1. https://drfiene.files.wordpress.com/2023/01/1ehandbook-key-indicator.pdf
2. https://drfiene.files.wordpress.com/2023/01/1ehandbook-key-indicator.pdf
3. https://drfiene.files.wordpress.com/2023/01/2ecpqim-articles.pdf
4. https://drfiene.files.wordpress.com/2023/01/2ecpqim-articles.pdf
5. https://drfiene.files.wordpress.com/2023/01/3riki-book-of-readings-3rd-edition-2023.pdf
6. https://drfiene.files.wordpress.com/2023/01/3riki-book-of-readings-3rd-edition-2023.pdf
7. https://drfiene.files.wordpress.com/2023/01/4licensing-measurement-webinar-slides.pdf
8. https://drfiene.files.wordpress.com/2023/01/4licensing-measurement-webinar-slides.pdf
9. https://drfiene.files.wordpress.com/2023/01/5research-notes.pdf
10. https://drfiene.files.wordpress.com/2023/01/5research-notes.pdf
11. https://drfiene.files.wordpress.com/2022/07/cropped-riki-logo-vlg.jpg

1.1.5 Data Distributions in Regulatory Science (2023-01-29 15:13)

Data distributions in the human services as they relate to regulatory compliance are generally very skewed distributions which means that the majority of facilities being assessed/inspected will usually fall very close to the 100 % compliance level. There will also be an equally large number of facilities that are in substantial regulatory compliance (99 % - 98 % compliance levels). And then there are much fewer facilities that are either at a mid or low level of regulatory compliance (97 % or lower compliance levels). One might say that getting a score of 97 % on anything doesn't sound like it is mediocre or low but keep in mind we are addressing basic health and safety rules and not quality standards. So having several health and safety rules out of compliance is a big deal when it comes to risk assessment. It could be

argued that a state licensing agency was not upholding its gatekeeper function by allowing programs to operate with such regulatory non-compliance.

Why is the regulatory compliance data distribution important from a statistical point of view. Generally when we are dealing with social science data, the data are normally distributed or pretty close to being normally distributed. It is a trade mark of a well designed assessment tool for example. So when data are compared to other normally distributed data, there is a good chance that some form of a linear relationship will be ascertained, albeit, not reaching statistical significance in many cases but linear regardless.

When a very skewed data distribution is one of the variables as in the case with regulatory compliance data and it is compared with a normally distributed data set such as a program quality tool, ERS or CLASS. Well, the result is generally a non-linear relationship with a marked ceiling effect or plateau effect. In other words, the data distribution is more curvilinear than linear. From a practical standpoint this creates selection problems in the inability to identify the best programs that have full regulatory compliance. This can create a public policy nightmare in that those programs which are in substantial but not full regulatory compliance are as good or in some cases of higher quality than those programs in full regulatory compliance. The interesting question is does the combination of normally distributed data distributions with variables that have skewed data distributions always produce this nonlinear result?!

And lastly, will having two variables that are skewed data distributions produce a more random result than if one of the two above conditions are present?

1.1.6 A Potential Reason for Skewed Regulatory Compliance Data Distributions
(2023-01-29 15:33)

One thing that is ever present with regulatory compliance data distributions is that they are terribly skewed. See the previous post which provides a definition of skewed distributions and their implications. This post is going to attempt to provide a potential answer to why the data base is skewed.

At first, I was led to believe that potentially the skewness in the data was a result of the rules that being stringent enough, in other words, the health and safety standards were too easy to comply with. That could definitely be a contributing factor but this is not the case in all instances when one compares state human service rules and regulations and the Head Start Performance Standards. I think a much deeper structure may be operating that is more philosophical rather than practical.

The philosophy of regulatory compliance and rule formulation is one of risk aversion. In other words, how do we mitigate risk that potentially increases the chances of mortality or morbidity in the clients being served when a specific rule is out of compliance. This philosophy emphasizes the elimination of a risk, taking something away rather than adding to it. It is essentially, "Do No Harm". It is interesting to note that generally regulatory compliance scoring is nominal in being either "Yes" or "No"; and a lower score is better than a higher score, there are fewer violations of rules. Not the way most assessment tools are designed.

For example, when one looks at program quality, this system is based upon the open-endedness adding to rather than taking away. It is all about, "Do Good" rather than "Do No Harm". Generally when you look at the data distributions here, they are more normally distributed without the skewed nature of regulatory compliance data distributions. Generally program quality scoring is ordinal in nature on a Likert Scale. A higher score is better than a lower score. Makes sense in that when you have more of a good thing, the higher the score. And the philosophy of program quality is one of improvement with relatively little emphasis on risk aversion.

This is an alternate explanation to why regulatory compliance data distributions are so terribly skewed in comparison to other program quality measures.

1.1.7 TRC+: Regulatory Compliance Theory of Diminishing Returns (2023-01-29 16:32)

Here is an updated Regulatory Compliance Theory of Diminishing Returns (TRC+)(Fiene, 2023) graphic which captures all the key elements of the theory related to risk assessment (RAM), key indicators (KIM), effectiveness (Eff), efficiency (eff), quality (PQ), risk benefit, and regulatory compliance scaling (RCS).

[1]

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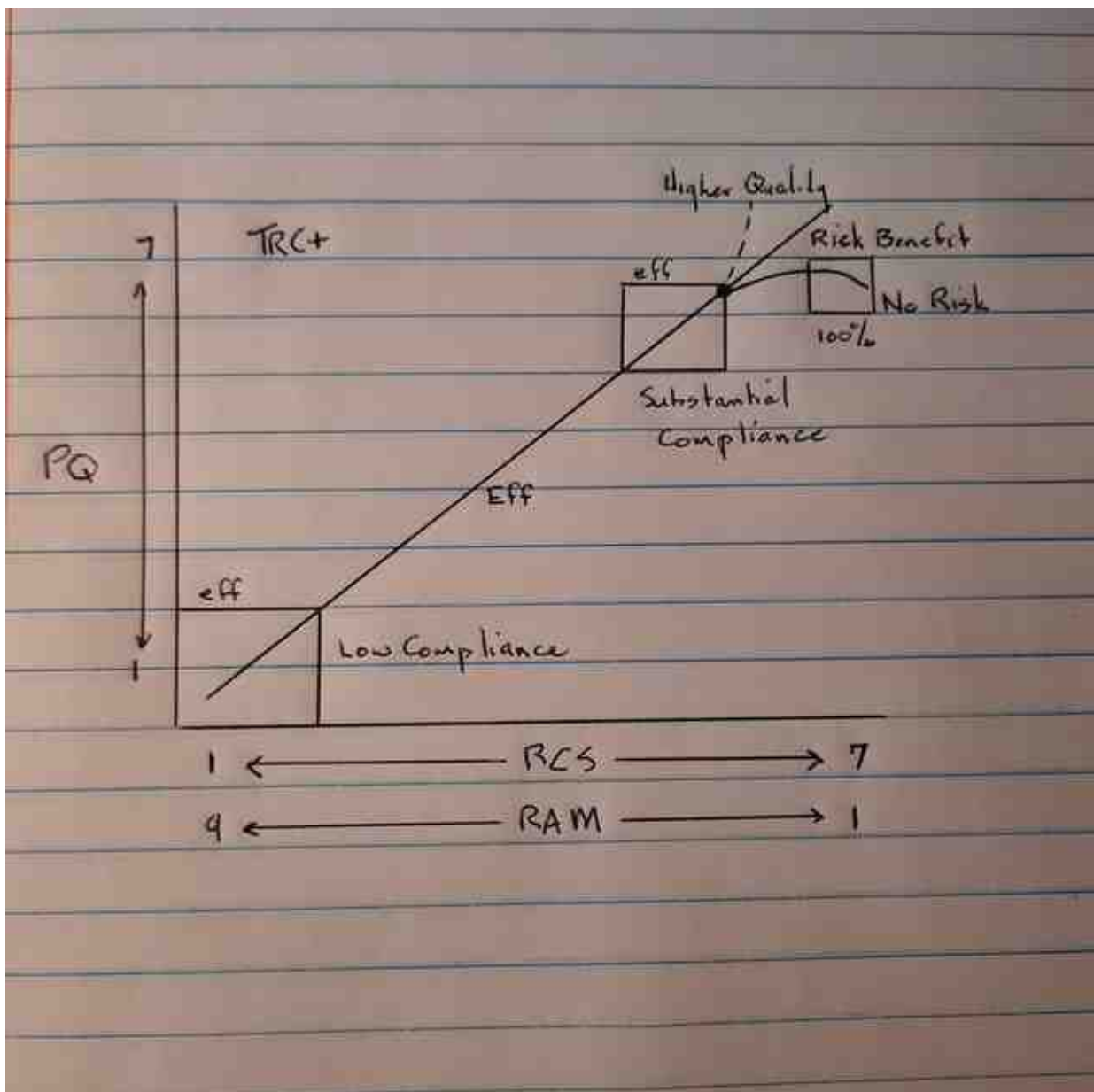
From the above graphic, this updates the original graphic on the RIKI Introduction Page. It places RAM and RCS in place of the regulatory compliance horizontal scale. The RCS scale is on a 7 point scale just as the PQ scale is. It also clearly demonstrates the differences between efficiency and effectiveness measures by depicting the RAM (Eff) and KIM (eff) metrics. And the essence of the theory demonstrates the curvilinear nature of the relationship between PQ and RC at the substantial compliance level. The trade offs in moving from substantial to full (100 %) compliance with the benefit of no risk versus moving from substantial to higher quality benefiting the client but not reducing the risk.

1. https://drfiene.files.wordpress.com/2023/01/20230129_111203.jpg

1.1.8 The Risk Assessment Matrix and Key Indicator Matrix (2023-01-29 16:52)

This post depicts the relationship of the risk assessment matrix (RAM) and the Key Indicator Matrix (KIM) with one embedded within the other. It clearly demonstrates how the two matrices are related by risk aversion and the mitigation of such risk for clients. This matrix builds off a previous post regarding the RAM and KIM matrices but that post dealt with more of the statistical aspects of the methodologies.

RAM + KIM *Probability*
Matrices Low Medium High
Low 1 2 (KIM Low) 3
Risk Medium 4 5 6
High 7 8 (KIM High) 9
Risk Assessment Matrix (RAM) + Key Indicator Matrix (KIM)

The above matrices demonstrate how RAM deals with risk and probability of rule non-compliance while KIM deals with the distinction between medium rule non-compliance with a low compliant and a high compliant group in a more predictive fashion. The key element here is for risk aversion and to reduce risk as much as possible. Please refer back to the previous post which depicts how RAM and KIM which measure effectiveness and efficiency respectively in a differential monitoring approach as suggested through the Regulatory Compliance Theory of Diminishing Returns (TRC+). This is a delicate balancing act in determining the most effective and efficient approach utilizing the two methodologies. The purpose of the above table is to show the relationship between the two methodologies.

1.2 February

1.2.1 Regulatory Compliance and Quality Programs (2023-02-02 00:10)

Below is an article by Freer and Fiene (in press) to be published in the ***Journal of Regulatory Science*** this month that describes the need to balance regulatory compliance and quality addressing the constraints and opportunities for integration. It provides a unique perspective on how to develop this delicate balancing act.

Management systems for regulatory compliance and quality programs are examined in this paper from the standpoint of their potential integration and in terms of the concept of a process. The paper identifies five common drags on management system optimization and outlines a scoring system that organizations may use to evaluate their management systems for potential adoption of an integrated process-based program.

[1]1Compliance and Quality Paper[2]

1. `https://drfiene.files.wordpress.com/2023/02/1compliance-and-quality-paper.pdf`
2. `https://drfiene.files.wordpress.com/2023/02/1compliance-and-quality-paper.pdf`

1.2.2 ECE Professional Development and Accreditation (2023-02-08 18:20)

Here are two articles from the past that highlight early care and education professional development and accreditation and other program quality initiatives that are still pertinent today, that is why I am sharing them today. Take a look at the two articles, they will provide additional support for improving the overall quality of child care.

[1]CCAC Issue Brief[2]Download

[3]America's Child Care Problem Supplementary Materials[4]Download

1. `https://drfiene.files.wordpress.com/2023/02/ccac-issue-brief.pdf`
2. `https://drfiene.files.wordpress.com/2023/02/ccac-issue-brief.pdf`
3. `https://drfiene.files.wordpress.com/2023/02/americas-child-care-problem-supplementary-materials.pdf`
4. `https://drfiene.files.wordpress.com/2023/02/americas-child-care-problem-supplementary-materials.pdf`

1.2.3 Kenya's Innovative Use of the Theory of Regulatory Compliance
   (2023-02-08 18:30)

Kenya, in particular researchers from Kisii University, is using the theory of regulatory compliance in a very useful way to impact their regulatory environment and to promulgate effective and efficient regulations related to various industries. This study by Dr Wilfred Ochieng Omollo & George Makua Ogendi is the most recent example: Planning and Conservation of Urban Riparian Reserves.

[1]Planning and Conservation of Urban Reserves[2]Download

1. `https://drfiene.files.wordpress.com/2023/02/planning-and-conservation-of-urban-reserves.pdf`
2. `https://drfiene.files.wordpress.com/2023/02/planning-and-conservation-of-urban-reserves.pdf`

1.2.4 Integrative Monitoring, Differential Monitoring or Inferential, Instrument-based, and Coordinated Monitoring (2023-02-11 06:48)

The purpose of this blog post is to point out the intersections, differences and similarities of integrative, differential/inferential and coordinated monitoring as used in the monitoring of human service programs. Program monitoring has changed over the years in that not only has it grown in the types of monitoring done, such as process, compliance, outcome monitoring, etc.; but also in the functional aspects of monitoring as delineated with integrative, differential, and coordinated monitoring. Much has been written in the research literature about the types of monitoring but not as much regarding the functional aspects of monitoring probably because it is much newer and has grown with the various types of monitoring being used in different contexts.

Coordinated monitoring deals with monitoring across similar service types, for example, in early care and education, monitoring would be done using similar standards in Head Start, child care, preschool, etc. This is an effective and efficient approach which has been demonstrated through the creation and dissemination of *Caring for Our Children Basics* as a core set of standards for all these various settings. The US Dept of Health and Human Services has advocated this particular approach.

Differential monitoring focusing on the use of abbreviated or targeted inspections of programs that have a history of high regulatory compliance with specific rules or standards. It means spending more time and doing a more comprehensive review of those programs having difficulty complying with specific rules, these can be based upon risk assessment or predictive value of overall compliance. This is a very efficient approach which has been demonstrated

to save time in monitoring reviews. Many states in the USA and provinces in Canada use this approach. The US Office of Head Start has experimented with the approach.

Instrument-based program monitoring utilizes instruments, tools, or checklists for recording all data when a review or inspection is completed. It is different from the case review or anecdotal type of record keeping. This approach started in the late 1970's, early 1980's when it was introduced by the Children's Services Monitoring Transfer Consortium, a federally funded research project consisting of California, Michigan, West Virginia, Pennsylvania and New York City. Its development occurred parallel with the development of differential monitoring but with particular emphasis on the metrics or measurement domain when it came to tool development. The **Child Development Program Evaluation Scale** was a major tool developed from this initiative.

Integrative monitoring is a relatively new approach to monitoring in which the emphasis is on integrating regulatory compliance rules with quality programming standards. Note the emphasis is on the rules and standards and not on who gets applied to those rules and standards nor how they get applied. However, combining integrative monitoring with differential monitoring is an interesting research focus which could be a very effective and efficient approach in combining these two perspectives. In the past, licensing and quality programming have generally been in their own silos when it comes to program monitoring. Integrative monitoring removes them from these silos and suggests building a continuous metric that starts with the health and safety aspects of rules and adds in the quality pieces on top of the rules. Presently, quality initiatives, such as Quality Rating and Improvement Systems, Accreditation, and Professional Development systems are examples of standards that could be used to build upon health and safety licensing rules.

There appears to be interest in pursuing an integrative monitoring approach in several jurisdictions in the early care and education field but this interest extends beyond and has been suggested more broadly by a recent article published in the *Journal of Regulatory Science* by Freer & Fiene (2023). *Regulatory compliance and quality programming: Constraints and opportunities for integration*, Volume 11, Number 1, 1-10[1] ([2]**Journal of Regulatory Science**). The interested reader may want to take a look at the article, it does provide a unique model for pursuing integrative monitoring. Also, one may be interested in Fiene's eHandBook on *Licensing Measurement and Monitoring Systems: Regulatory science applied to human services regulatory administration* available at **[3]https://RIK[4]Institute.com.** This eHandBook provides the basics of licensing measurement and program monitoring metrics.

Here is a graphic that has been used to describe a logic model for ECPQIM: Early Childhood Program Quality Improvement and Indicator Model/Differential Monitoring Logic Model and Algorithm (DMLMA) which overlays the monitoring approaches (Coordinated, Instrument-based, Differential/Inferential, and Integrative) with the logic model.

[5]ECPQIM-DMLMA Graphics[6]Download

1. `https://regsci-ojs-tamu.tdl.org/regsci/article/view/264`
2. `https://regsci-ojs-tamu.tdl.org/regsci/article/view/264`
3. `https://rikinstitute.com/`
4. `https://rikinstitute.com/`
5. `https://drfiene.files.wordpress.com/2023/02/ecpqim-dmlma-graphics.pdf`
6. `https://drfiene.files.wordpress.com/2023/02/ecpqim-dmlma-graphics.pdf`

1.2.5 Licensing Measurement and Monitoring Systems 2nd Edition (2023-02-11 20:06)

Below is the second edition of the *Licensing Measurement and Monitoring System eHandBook*: Regulatory science applied to human services regulatory administration for regulatory scientists, licensing researchers, regulatory administrators and their policy and program staffs.

[1]Licensing Measurement Fiene[2]Download

1. `https://drfiene.files.wordpress.com/2023/02/licensing-measurement-fiene.pdf`
2. `https://drfiene.files.wordpress.com/2023/02/licensing-measurement-fiene.pdf`

1.2.6 Licensing Measurement and Monitoring Systems eHandBook and PPT Slide Deck (2023-02-22 08:55)

Here are the eHandBook and the Powerpoint Slide Deck for *Licensing Measurement and Monitoring Systems* that can be used by licensing administrators, regulatory scientists, licensing researchers, and licensing program staff. These contain the latest research updates. For those interested, please check back because I will be updating both documents, obviously these are a work in progress as we learn more about licensing measurement.

[1]LMS PPT1b Fiene[2]Download

[3]LMS ehandbook1 Fiene[4]Download

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1. https://drfiene.files.wordpress.com/2023/02/lms-ppt1b-fiene.pdf
2. https://drfiene.files.wordpress.com/2023/02/lms-ppt1b-fiene.pdf
3. https://drfiene.files.wordpress.com/2023/02/lms-ehandbook1-fiene.pdf
4. https://drfiene.files.wordpress.com/2023/02/lms-ehandbook1-fiene.pdf

1.2.7 New TRLECE Report on Monitoring Practices Used in Child Care and Early Education Licensing (2023-02-24 00:51)

Here is a new report on monitoring practices used in child care and early education licensing published by OPRE's TRLECE: The Role of Licensing in Early Care and Education Project. This is a wonderful new resource which will help to inform how states are utilizing monitoring to ensure that programs are meeting their state's respective rules and regulations. This is a highly recommended read for anyone in the ECE field as well as parents and advocates.

[1]trlece _licensing _monitoring _practices _dec2022[2]Download

1. https://drfiene.files.wordpress.com/2023/02/trlece_licensing_monitoring_practices_dec2022.pdf
2. https://drfiene.files.wordpress.com/2023/02/trlece_licensing_monitoring_practices_dec2022.pdf

1.3 March

1.3.1 Licensing Measurement and Monitoring Systems eHandBook available on Digital Publishing Site (2023-03-04 07:43)

Here is a link to the *Licensing Measurement and Monitoring Systems eHandBook* online for easy access via a digital publishing site.

[1]LMSehandbook156 Fiene 2nd Ed[2]Download

1. https://drfiene.files.wordpress.com/2023/03/lmsehandbook156-fiene-2nd-ed.pdf
2. https://drfiene.files.wordpress.com/2023/03/lmsehandbook156-fiene-2nd-ed.pdf

1.3.2 Ten Principles of Regulatory Compliance Measurement (2023-03-10 13:57)

A short paper is posted proposing ten principles to consider when dealing with regulatory compliance measurement within the regulatory science field. It is based upon 50 years of research diving deep into regulatory compliance data at the state, national, and international levels. These principles are based upon repeated demonstrations in studies conducted across the above three venues.

[1]Ten Principles of RCM2[2]Download

1. https://drfiene.files.wordpress.com/2023/03/ten-principles-of-rcm2.pdf
2. https://drfiene.files.wordpress.com/2023/03/ten-principles-of-rcm2.pdf

1.3.3 The Public Policy Implications of the Regulatory Compliance Theory of Diminishing Returns, Regulatory Compliance Scale, and the Program Quality Scoring Matrix along with Integrative Monitoring (2023-03-17 11:12)

A technical research note/abstract combining research from several regulatory compliance metrics over the past decade into one abstract emphasizing the public policy implications of this research.

From the introduction to the abstract "This technical research note/abstract provides a data matrix depicting the relationship between regulatory compliance and program quality. The data clearly demonstrate the regulatory compliance theory of diminishing returns which depicts the ceiling or plateau effect in this relationship between regulatory compliance data and program quality data. It also shows the difficulty one will have in distinguishing program quality differences at the full and high regulatory compliance levels but the ease in distinguishing program quality between low regulatory compliance and high regulatory compliance levels."

"The importance of these studies and the summary matrix is to provide a context in how licensing and regulatory compliance data should be used in making public policy decisions, for example: is it more effective and efficient to require high or substantial regulatory compliance than full regulatory compliance with all rules and regulations to be granted a full license to operate? It appears prudent to continue with the US emphasis on QRIS as an add on quality

initiative, especially in states where rules/regulations are at a minimal level. In Canada their emphasis has been more in line with an integrative monitoring approach in which quality elements are built in or infused within the rules and
regulations themselves. This approach appears to work in a similar fashion and is an effective public policy initiative. Either approach appears to be an effective modality to increasing program quality; but are both equally efficient."

[1]FRCS TRC PQ Matrix1[2]

1. https://drfiene.files.wordpress.com/2023/03/frcs-trc-pq-matrix1.pdf
2. https://drfiene.files.wordpress.com/2023/03/frcs-trc-pq-matrix1.pdf

1.3.4 Regulatory Compliance Matrix (2023-03-25 10:31)

Displayed in the attached document is a comparison of regulatory compliance metric principles, prevailing paradigms and a continuum of quality matrix. These principles and key elements have been presented in previous posts but here they are presented side by side depicting where there are common treads. For the interested reader who wants additional information about any of the principles or elements, please consult the previous RIKINotes Posts for additional details.

[1]Regulatory Compliance Matrix[2]Download

1. https://drfiene.files.wordpress.com/2023/03/regulatory-compliance-matrix.pdf
2. https://drfiene.files.wordpress.com/2023/03/regulatory-compliance-matrix.pdf

1.4 April

1.4.1 At the Intersection of Psychology and Spacetime (2023-04-14 18:52)

Here is a brief essay on the "*At the Intersection of Psychology and Spacetime*" that I thought people would be interested in reading. It is a more popular version of other posts I have made in this RIKINotes Blog over the years that are more technical in nature. See what you think. I had fun putting it together.

[1]Psychology Spacetime1[2]Download

1. `https://drfiene.files.wordpress.com/2023/04/psychology-spacetime1.pdf`
2. `https://drfiene.files.wordpress.com/2023/04/psychology-spacetime1.pdf`

1.4.2 Update on Saskatchewan Differential Monitoring and Quality Indicators Study
(2023-04-15 09:31)

In several posts on this site, I have provided updates related to the comprehensive project and research study occurring in the Province of Saskatchwan's Ministry of Education child care programs involving their development and implementation of a differential monitoring approach to licensing and regulatory compliance.

As reported previously, they have gone through several developmental stages over the past several years in developing their licensing key indicators and risk assessment rules. These systems have been validated (please see the National Association for Regulatory Administration (NARA) website: [1]*NARA Key Indicators*) for the final report on these validation studies.

The last component in the development of the Saskatchewan Differential Monitoring approach was to develop and implement quality indicators. Saskatchewan is the first jurisdiction to employ all components to a differential monitoring approach. This part of the project is nearing its conclusion as 85 % of the data to validate this portion of the approach is completed. It is projected that by the end of the month all data will be collected and analyzed by that point. A final report will be generated at that point and posted to the NARA website along with the other validation study reports.

Just as a sneak preview, it appears that the program quality indicators scale (Saskatchewan Early Childhood Program Quality Indicators) developed and tested in this study will be validated when compared to environmental rating scales (ECERS & ITERS) and regulatory compliance data (RCS: Regulatory Compliance Scale). This will only help to add to the tools that are available to licensing agencies as they monitor early care and education programs throughout Canada and the United States as well as beyond. The new program quality indicator scale will have broad applicability and be based upon a solid empirical base.

Attached below is the codebook being used for the analyses and to generate the output for the validation study and a draft of the final report format for this very important study.

[2]4Codebook+Output[3]Download

[4]1SK ECQKI Report18c4[5]Download

1. https://www.naralicensing.org/key-indicators
2. https://drfiene.files.wordpress.com/2023/04/4codebookoutput.pdf
3. https://drfiene.files.wordpress.com/2023/04/4codebookoutput.pdf
4. https://drfiene.files.wordpress.com/2023/04/1sk-ecqki-report18c4.pdf
5. https://drfiene.files.wordpress.com/2023/04/1sk-ecqki-report18c4.pdf

1.4.3   NARA Webinar on Big Data (2023-04-19 18:32)

Here is a new **NARA: National Association for Regulatory Administration** Webinar coming up next month that people may be interested in: *How Regulatory Agencies are Using Big Data to Predict Non-Compliance.*

[1]

1. https://drfiene.files.wordpress.com/2023/04/nara-webinar.png

1.5 May

1.5.1 CLEAR Webinars coming up this Spring 2023 (2023-05-06 08:54)

Here are two CLEAR: Council on Licensing, Enforcement and Regulation Webinars coming up this month and next that may be of interest related to regulatory compliance and big data.

[1]CLEAR Webinars[2]Download

1. https://drfiene.files.wordpress.com/2023/05/clear-webinars.pdf
2. https://drfiene.files.wordpress.com/2023/05/clear-webinars.pdf

1.5.2 Five Studies Providing Evidence for the Regulatory Compliance Diminishing Returns Effect (2023-05-07 18:21)

The following attachment contains five studies providing the empirical evidence supporting the regulatory compliance diminishing returns effect or ceiling effect that is the cornerstone of the theory of regulatory compliance as proposed by Fiene (2016, 2019). The studies were completed between 2013 - 2023.

[1]TRC 5 Studies[2]
Download

1. https://drfiene.files.wordpress.com/2023/05/trc-5-studies.pdf
2. https://drfiene.files.wordpress.com/2023/05/trc-5-studies.pdf

1.5.3 Saskatchewan Study Confirms Program Quality Indicators (2023-05-10 14:14)

The downloadable file below contains the final report of the Saskatchewan Early Childhood Program Quality Indicators Validation Study. The report contains the results from the validation study and analyses as well as the Program Quality Indicators Scale. It is the final piece in assembling/validating the differential monitoring approach in Saskatchewan's Ministry of Education Child Care Programs.

This is a very significant study because of the following: It was a large comprehensive validation study involving 30 programs, 90 classrooms and 180 observations of infant, toddler, and preschool classrooms utilizing the Early Childhood Environmental Rating Scale (ECERS)/Infant Toddlers Environmental Rating Scale (ITERS) and the Saskatchewan Early Childhood Program Quality Indicators (SKECPQI) instruments. Six trained observers collected the data over a

two-month period.

The analyses clearly demonstrated that the new SKECPQI instrument is a valid and reliable measure of program quality. Program Quality Indicator Number 2 (PQI #2) clearly showed its predictive power in this study. The SKECPQI and PQI #2 correlated very highly with the ITERS and ECERS. The SKECPQI appears to correlate more highly with regulatory compliance violations than the ECERS or ITERS. The ceiling/plateauing effect is not as evident with the SKECPQI as it is with ECERS/ITERS.

The Regulatory Compliance Scale (RCS) is a better sorter for regulatory compliance than the violation data. There is a good deal of internal consistency within the SKECPQI Tool just as it is with the ERSs.

The Regulatory Compliance Theory of Diminishing Returns was validated in comparing RCS with ECERS/ITERS. Both the SKECPQI Scale and the Regulatory Compliance Scale are introduced as new improvements to measuring quality and regulatory compliance.

This report should have great national and international interest generated because of the above results and the new scales being proposed. Both scales are generated from empirical evidence and expert opinion.

[1]SKPQI[2]Download

1. https://drfiene.files.wordpress.com/2023/04/skpqi.pdf
2. https://drfiene.files.wordpress.com/2023/04/skpqi.pdf

1.5.4   Saskatchewan Quality Indicators Study (2023-05-10 14:15)

Attached is the Saskatchewan Quality Indicators Study (***The Saskatchewan Early Care and Education Quality Indicators Tool and Validation***) which validates the new program quality tool developed in this Canadian province.

An excerpt taken from the Report's Abstract:

This validation study involved 30 programs, 90 classrooms and 180 observations of infant, toddler, and
preschool classrooms utilizing the ECERS/ITERS and the SKECPQI instruments. Six trained observers
collected the data over a two-month period. The analyses clearly demonstrated that the new SKECPQI
instrument is a valid and reliable measure of program quality. PQI #2 clearly showed it predictive power
in this study. The SKECPQI and PQI #2 correlated very highly with the ITERS and ECERS. The SKECPQI appears to correlate more highly with regulatory compliance violations than the ECERS or ITERS. The ceiling/plateauing effect is not as evident with the SKECPQI as it is with ECERS/ITERS. The Regulatory Compliance Scale (RCS) is a better sorter for regulatory compliance than the violation data. There is a good deal of internal consistency within the SKECPQI Tool just as it is with the ERSs. The Regulatory Compliance Theory of Diminishing Returns was validated in comparing RCS with ECERS/ITERS. Both the SKECPQI Scale and the Regulatory Compliance Scale are introduced as new improvements to measuring quality and regulatory compliance.

[1]NARA Saskatchewan ECPQI[2]Download

1. https://drfiene.files.wordpress.com/2023/05/nara-saskatchewan-ecpqi-.pdf
2. https://drfiene.files.wordpress.com/2023/05/nara-saskatchewan-ecpqi-.pdf

1.5.5   Ceiling Effect/Diminishing Returns, Regulatory Compliance and Program Quality Indicator Scales (2023-05-14 18:32)

A relatively short technical research note on the results from a study supporting the use of the Regulatory Compliance Scale and the Program Quality Indicator Scale and the fifth validation study supporting the Ceiling Effect/Diminishing Returns related to the theory of regulatory compliance.

[1]CE - RCS - PQI[2]Download

1. https://drfiene.files.wordpress.com/2023/05/ce-rcs-pqi.pdf
2. https://drfiene.files.wordpress.com/2023/05/ce-rcs-pqi.pdf

1.5.6 New Licensing Measurement/Regulatory Compliance Tools for Licensing Administrators and Regulatory Scientists (2023-05-17 10:30)

In a previous blog post, I presented the ceiling effect/diminishing effect, the regulatory compliance scale, and the program quality indicators scale. In that post, I said I would be doing additional data mining of the very rich database that was created in Canada and used to generate these new tools: the regulatory compliance scale and the program quality indicators scale. Here are some of my insights in having done this deeper dive into the database.

The ceiling effect/diminishing effect was present when the regulatory compliance scores were compared to the environmental rating scale scores with the typical plateauing in the quality scores as one moves from substantial to full 100 % regulatory compliance. However, the plateauing was not present when comparing the program quality indicators scale scores and the regulatory compliance scores. There was more of a linear relationship between the two. Why could that be the case? In reviewing the content of the program quality indicators scale there appears to be more of a balance in how quality is determined. Remember, the program quality indicators scale is the result of previous key indicator research involving licensing, accreditation, professional development, quality rating and improvement systems. It may provide a more balanced approach for licensing administrators in attempting to address the infusion of program quality into their licensing system. And, in fact, I would go so far to say that the program quality indicators scale could be used as a screener tool for measuring program quality across the board. This is something that I have refrained from doing in the past, but given the new scale, I think this is a potential use of the new program quality indicators scale.

I could also see the use of the program quality indicators scale as a public policy enhancement by using it in conjunction with **Caring for Our Children Basics** which I have proposed all licensing administrators use as their baseline for regulatory development and implementation. Using the two in tandem would be a win-win in that it would be the ultimate manifestation of the use of the key indicator methodology in addressing both basic health and safety as well as program quality together in a differential monitoring approach. This would provide a very cost effective and efficient monitoring system.

Another insight from my deep dive into the database is that using violations frequency data is not a useful metric in licensing measurement. The frequency data needs to be put into more logical categories or buckets, such as full, substantial, mediocre, and low regulatory compliance which is more consistent with licensing research. The frequency data measured at a nominal level just doesn't work because the data are so discrete and not continuous. There is a total random relationship between regulatory compliance and program quality when it is used. Put these violation frequency data into the regulatory compliance scale and it works really well in distinguishing amongst the various levels of program quality. See my previous blog posts on introducing the regulatory compliance scale and how it can be used.

I plan on continuing my deep dive into the database and see what other insights I can glean

from the data. For now, I wanted to share these initial insights because I think they can be put to immediate use. Both the regulatory compliance scale and the program quality indicators scale are available for use by licensing administrators and regulatory scientists. Both are contained within previous posts on this blog. I encourage you to try them out, I was really surprised by how robust and useful they were. They really do make a difference in the analyses.

1.5.7 Regulatory Compliance, Ceiling Effect/Diminishing Returns, Regulatory Compliance Scale, Program Quality Indicators Scale, ECPQIM Databases (2023-05-17 12:55)

Attached is a listing of the various databases available via Mendeley Data for interested licensing researchers and regulatory scientists. The databases will provide the raw data demonstrating the relationships between regulatory compliance and program quality and have many quality initiative databases. They are available for viewing and downloading and contain the proper citations. If any scientist has a question about the databases, please don't hesitate to contact Dr Fiene at the Research Institute for Key Indicators/Penn State University: rfiene@rikinstitute.com.

[1]Database Citations[2]Download

1. https://drfiene.files.wordpress.com/2023/05/database-citations.pdf
2. https://drfiene.files.wordpress.com/2023/05/database-citations.pdf

1.5.8 As a Licensing Administrator, all the Questions You Wanted to Ask about Regulatory Compliance but were Afraid of the Answers (2023-05-18 19:32)

The first answer is probably the most controversial but at the same time the most important from a public policy point of view, the Ceiling Effect, the Regulatory Compliance Theory of Diminishing Returns. Without a doubt this is probably the one result of all the research into regulatory compliance that has resulted in the most sleepless nights for researchers and administrators. But it is the kernel of everything related to regulatory compliance and so many suggested changes that occurred after its discovery and publication. When it was first proposed back in the 1970's and 1980's, it was looked upon as heresy because it went against all regulatory thinking at that point. Of course, there was a linear relationship between regulatory compliance and program quality; but the empirical data was not supporting this predominant paradigm. The data clearly demonstrated that full 100 % regulatory compliance

did not guarantee that these same programs were the highest quality.

Wow, that was a revelation. It was always assumed that as regulatory compliance increased, program quality would increase in the same proportion. Very honestly, that was the hypothesis back in the 1970's and it would have been so much more simple if that were the case. Of what is to follow would never have occurred because there would not have been support for it. But it did not work out that way. The data back then and the data to this day clearly indicates that regulatory compliance has limitations when it comes to identifying program quality. Licensing via regulatory compliance will ensure health and safety but it will not guarantee quality of programming. This is an important distinction and one that is pertinent to all industries impacted by regulatory science and not just the human services.

So what are some of the key questions and their respective answers based upon this paradigm shifting discovery related to a ceiling effect with regulatory compliance data? The first that will jump out at you has to do with "one size fits all vs a more targeted or differential approach". If there was a linear relationship between regulatory compliance and program quality, one size fits all would work just fine. But when there is a ceiling effect present, it lends itself to a more targeted or differential approach in which the pursuit of specific rules/regulations/standards have a differential impact on the overall program is warranted. Clearly it opens the door to risk assessment analysis and predictor analysis via key indicators. Both these approaches would not be necessary if all rules were created equal and administered equally; but they are not. So, as a licensing administrator, you need to take that into account and weight rules and look for rules that statistically predict overall regulatory compliance.

Another major issue with regulatory compliance which adds to the difficulty of making licensing decisions and how best to enforce rules is the fact that the regulatory compliance data distribution is so skewed that it is very difficult to distinguish between the high performers and the mediocre performers. The data are not normally distributed as is the case with more program quality metrics. With regulatory compliance metrics (RegalCMetrics), it doesn't work that way and one will have difficulty in sharing with the general public who the best performers are. Plus, the data are all nominally measured, in other words, either a program is in compliance or out of compliance with each rule. Guess what, from a statistical point of view, not much you can do with that. Regulatory compliance violation data are not very useful. However, there is a work around for it call the Regulatory Compliance Scale which places the regulatory compliance violation data into categories or buckets that are more logical from a licensing point of view (this idea is addressed in several previous blog posts).

So where does that leave us. From a public policy point of view, licensing administrators have a big decision to make regarding the issue of full versus partial regulatory compliance in order to obtain a regular license. Based upon the empirical evidence, it would appear that being in substantial but not full regulatory compliance would be sufficient to being granted a regular license. But that is a major public policy change.

The paradigm shifts from one of being continuous to one that is more discrete and dichotomous in the following ways: "do things well versus do no harm" and "strength based versus a deficit based model". Both are important but they do change how you approach your monitoring of programs. Obviously the above quotes fit the "program quality versus the regulatory compliance" dichotomy as mentioned earlier which is at the heart of what we are trying to accomplish. One should build upon the other and be continuous. It should be a linear relationship but the ceiling effect prevents this from happening and it is more non-linear. And we are searching for that sweet spot of the right combination of risk aversion and statistical predictors of regulatory compliance.

This is what led to the Quality Rating and Improvement Systems (QRIS) movement and the proliferation of these systems because of the frustration that licensing systems just were not doing the job of balancing health and safety with program quality. And it was a good move, states did not have the appetite to take that on within their licensing systems; so a new approach had to be created. But now we need to think in a more integrative monitoring frame of reference to combine these two systems into one more effective and efficient approach, such as an Early Childhood Program Quality Improvement and Indicator Systems Model (ECPQI2M), which balances risk assessment (risk predictor rules) with program performance (quality indicators). I will address the ECPQI2M in an upcoming blog post in greater detail and demonstrate how it fits within the various program monitoring approaches.

We need to have the ability to more clearly distinguish the top performers from the mediocre performers as we can distinguish the top performers from the non-optimal performers. We need to balance our gatekeeper role to one more of an enabler. To balance risk and performance; structural and process quality.

These are really tough questions and many of the answers are difficult to digest but based upon the past 50 years of regulatory compliance/licensing measurement and research we are gradually finding our way. A paradigm shift is occurring whereas a field we are moving from an absolute/one size fits all to more of a relative/differential approach.

1.5.9 The Early Childhood Program Quality Improvement and Indicator Systems Model (ECPQI2M) (2023-05-19 06:56)

[1]
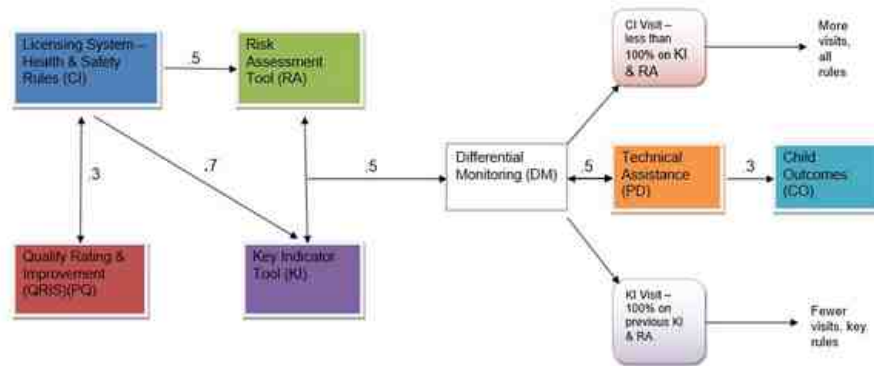
$$\sum CI \times \sum PQ \Rightarrow \sum RA + \sum KI \Rightarrow \sum DM + \sum PD \Rightarrow CO$$

1

The above graphic displays the Early Childhood Program Quality Improvement and Indicator Systems Model (ECPQI2M) that has been described in a previous blog post. In this blog post, there is the need to cross-reference the model with the various monitoring approaches that have been used in the human services over the past 50 years in order to demonstrate how this model can tie the various approaches into a unified system as suggested in the previous post (also see the **Licensing Measurement and Monitoring Systems eHandBook** that is available on this blog as well as on the RIKI Introductory/Main Webpage).

Program monitoring has gone through many variations as has the ECPQI2M. Program monitoring has had an anecdotal phase, instrument-based phase, coordinated phase, differential/inferential phase, and integrative phases. The ECPQI2M has also gone through five phases/editions as well mirroring the program monitoring developmental stages.

In the above model, the anecdotal phase is depicted essentially by the first two blocks to the left: Licensing Systems and QRIS blocks. These were independent of each other during the anecdotal phase because these systems came online at different points in time. Licensing was first with QRIS coming on later in time to build upon and expand the quality component of licensing. The other problem with the anecdotal phase was the emphasis on case notes within licensing for doing inspections and reviews and the inability of using these data to communicate with any other system in a large scale way.

The instrument-based program monitoring phase basically started to replace the anecdotal phase beginning in the 1970's with the introduction of checklists and tools to gather more and

34

more data from programs that were increasing in number and size. There was a tremendous expansion taking place in the human services, especially in early care and education programs, that necessitated a new program monitoring system to track all these new programs. Once this system change occurred, it was possible to make the systems more efficient and effective based upon the new level of quantitative data measurement and analysis. This ushered in the inferential/differential monitoring phase. This is depicted in the above graphic in the same two boxes to the left but now they have the ability to communicate with each other.

The inferential/differential monitoring phase was a change made possible because of the regulatory compliance theory of diminishing returns/ceiling effect which was reported in the licensing research literature in the late 1970's, early 1980's. With this theory, it became possible to approach regulatory compliance in a new and innovative way that relied on risk assessment and key indicator methodologies and introduced the idea of abbreviated reviews or inspections. This is depicted in the above graphic in the middle three boxes: Risk Assessment, Key Indicators, and Differential Monitoring. It was a major paradigm shift for the human services field and was mostly felt in the early care and education domain. Two publications of standards by ACF/HHS **Stepping Stones to Caring for Our Children** and **Caring for Our Children Basics** came out of this phase which relied upon risk assessment and key indicators respectively for their development.

The next phase of program monitoring started in the 2000's, the coordinated monitoring phase came into being because of the proliferation of early care and education programs in many areas: Head Start, child care, preschool, public and private center based and home based care (this phase of monitoring was heavily encouraged by ACF and OPRE). Based upon this growth and the differing standards, rules, and regulations, there was a need to coordinate monitoring reviews across the governmental/funding silos and domains in order to be more effective and efficient. In the above graphic, again the first two boxes are pertinent but now think about reviewing all the various standards, rules, and regulations in a coordinated fashion rather than separately when viewing these two blocks.

The last phase to be addressed in the above model is to take the full model into focus and to really begin to think in terms of an integrative monitoring approach (see the Freer & Fiene, 2023 blog post earlier this year related to their **Journal of Regulatory Science** article on this topic) which combines regulatory compliance and program quality into one effective and efficient program monitoring system. In this phase, the silos come down totally and all systems are talking with each other from licensing to QRIS to accreditation to professional development/technical assistance. Data are freely shared from one system to another and scoring takes into account health and safety but program quality as well. There is the development and implementation of program quality indicators as well as licensing indicators and risk assessment rules. When this is done, the beneficiary is in child outcomes in which true developmentally appropriate individualized targeted education and care can be provided for each child in a family friendly delivery system; assessments are tied to curriculum; encouraging communication and reasoning skills in children; and caregivers who are warm and attentive to children.

1.5.10 Early Care and Education Program Quality Indicators Database (2023-05-25 17:56)

Several regulatory scientists asked if I could post the database outputs that were used to generate the ECE Program Quality Indicators. Please find the database output below as an SPSS data output file. It is rather long (150 pages of printouts) but it contains all the key parameters related to generating the reliability and validity of the scale as well as the descriptive outputs for the PQI scale. The PQI scale clearly demonstrated its robustness when compared to the Environmental Rating Scales. It is a solid addition to the ECE research literature. It is a first of its kind in that it is totally generated from an existing statistical methodology used to present key indicators from licensing, QRIS, professional development, technical assistance, training, and accreditation. It is based both upon empirical evidence as well as expert review.

[1]PQI Output3x2a[2]Download

1.5.11 The Emergence of a New Early Childhood Program Quality Scale (2023-05-31 06:13)

Attached below please find a new Early Childhood Program Quality Scale: ***ECEPQI - Early Childhood Education Program Quality Indicators.***

[1]ECEQISM (1)[2]Download

1.5.12 Licensing Measurement and Monitoring Systems: A Generic View of Regulatory Science Applied to Human Service Regulatory Administration (2023-05-31 19:14)

The attached paper provides a more generic view of licensing measurement and monitoring systems moving from a more restricted early care and education lens to a much broader lens to assess regulatory science's influence on human services regulatory administration. This paper builds off of the **[1]ehandbook** of the same title that is used as the text for the **[2]NARA Licensing Curriculum course: Licensing Measurement and Systems.**

[3]LMS Paper[4]Download

1. https://www.yumpu.com/en/document/view/67521679/lmsehandbook156-fiene-2nd-ed
2. https://www.naralicensing.org/nara-licensing-curriculum
3. https://drfiene.files.wordpress.com/2023/05/lms-paper.pdf
4. https://drfiene.files.wordpress.com/2023/05/lms-paper.pdf

1.6 June

1.6.1 Licensing Monitoring Practices in the United States (2023-06-02 08:18)

Here are two graphics taken from the **TRLECE Monitoring Practices Used in Child Care and Early Childhood Licensing** publication. I have posted the full report in an earlier blog post (February 24, 2023) for those who would be interested in reading the full report.

This first image provides a flow chart for depicting how monitoring practices are being conducted in the US as of 2020. The second image provides a map depicting how individual states are using abbreviated inspections/differential monitoring approaches, such as risk assessment, key indicators, and consensus building.

[1]

Monitoring Practices for Child Care Centers

N=51 (all US states and the District of Columbia)

Routine inspections
49 states (96%) conduct routine inspections, either announced or unannounced

Full compliance monitoring
49 states (96%) conduct at least one inspection monitoring all rules

Differential monitoring
37 states (73%) use a regulatory method for determining the depth or frequency of monitoring

Frequency of full compliance inspections
- Less than once a year: 11 states (22%)
- Once a year: 29 states (57%)
- Twice per year: 4 states (8%)
- Three or more per year: 1 state (2%)
- Other: 4 states (8%)

Depth of inspections
Licensing agencies may use abbreviated inspections to monitor a subset of regulations instead of all regulations
- 35 states (69%) use abbreviated inspections

Frequency of inspections
Licensing agencies may use compliance history to determine frequency of inspections
- 17 states (33%) determine inspection frequency based on compliance history

Policies to switch to full compliance
Of the 35 states that use abbreviated inspections, 23 states (66%) have policies on when to switch to full compliance inspections

What methods are used to select the regulations included in abbreviated inspections?*
Of the 35 states using abbreviated inspections:
- 21 states (60%) use a consensus approach
- 17 states (49%) use a risk assessment
- 10 states (29%) use key indicators
- 2 states (6%) did not report a methodology

When are abbreviated inspections used?*
Of the 35 states using abbreviated inspections:
- 23 states (66%) use them for routine inspections
- 4 states (11%) use them for renewal inspections
- 1 state (3%) uses them during off year visits or additional drop-ins
- 1 state (3%) uses them for initial inspections
- 9 states (26%) did not specify when they are used

Source: Authors' analysis of the 2017 Child Care Licensing Study (Fischer & Orlowski, 2020).
*Respondents were allowed to select more than one response; therefore, responses will not sum to 100%.

Methods Used to Select Abbreviated Set of Regulations in 2017 (n=51)

Source: Authors' analysis of the 2017 Child Care Licensing Study (Fischer & Orlowski, 2020)

1. `https://drfiene.files.wordpress.com/2023/06/licensing-monitoring-practices-lm1.jpg`
2. `https://drfiene.files.wordpress.com/2023/06/licensing-monitoring-practices-map.jpg`
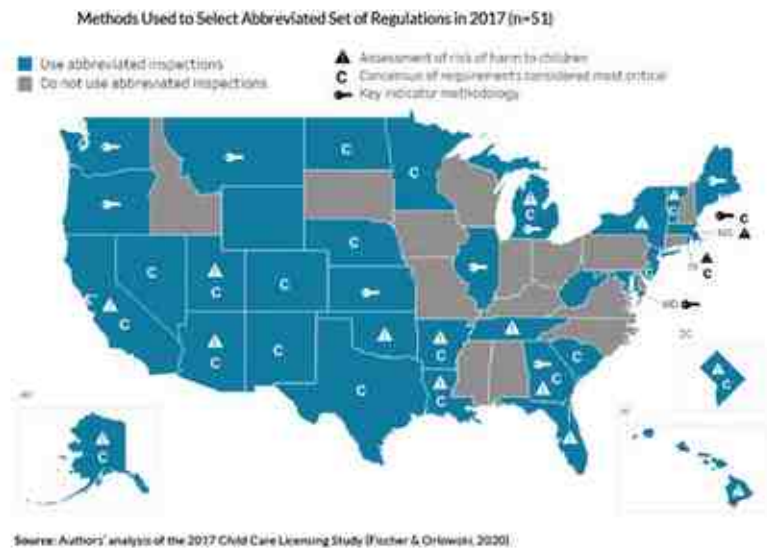
1.6.2 NARA Selected Readings on Licensing Measurement and Monitoring Systems (2023-06-03 19:57)

Below is an anthology of NARA selected readings on licensing measurement and monitoring systems that should be read along side the *eHandBook Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory*

Administration* which was posted to the RIKINotes blog earlier this year and also appears on the RIKI Home Page.

- *This eHandBook is the text for the NARA Licensing Curriculum Licensing Measurement course.

[1]NARA Selected Readings LMS Fiene 2023[2]Download

1. https://drfiene.files.wordpress.com/2023/06/nara-selected-readings-lms-fiene-2023.pdf
2. https://drfiene.files.wordpress.com/2023/06/nara-selected-readings-lms-fiene-2023.pdf

1.6.3 Risk Assessment and Key Performance Indicator Continuum (2023-06-05 09:22)

I want to continue the discussion related to the relationship between risk assessment and key performance indicators. I have posted about this relationship and other assorted concepts and ideas related to it in several previous blog posts I posted earlier this year. In this post I would like to see if I can tie some of these ideas and concepts together and show how risk and performance are more closely related and how to take advantage of this relationship.

These ideas percolated from a conversation and discussions I have been having with a colleague about a webinar we will be doing together where he suggested the use of a graphic to help to explain the essence of key performance indicators. His graphic was to be an airplane cockpit and all the gauges present on the dashboard that a pilot is looking at. A great deal of data and information to process but s/he focused on about 5-6 gauges that were the most important in flying the plane and really told the pilot if things were ok or not and when s/he needed to check the other gauges because these key performance indicator and risk assessment gauges were telling s/he something was not quite right. I would guess that two of these gauges were the altimeter and speed gauges which I would include as risk assessment gauges and a third gauge would have been the fuel gauge which I would include as a key performance indicator.

Why did I break these gauges down into the two major areas of risk assessment and key performance? Here is my thinking: the altimeter tells the pilot how close to the ground and a potential crash and the speed helps to prevent a stall of the aircraft. Both are high risk factors and things we would want to mitigate. The fuel tank is important to know how much fuel the

pilot has left; in, and of itself, not necessarily a risk factor unless it becomes too low but will impact performance because it determines how far the pilot can fly the plane.

A similar scenario could be played out with driving a car. Speed is the risk factor as it increases, while the gas tank gauge is the key performance indicator determining how far we can go and how much we are getting per gallon of gas which is an indicator on many newer models.

Let's try this out in a totally different industry and scenario, such as the pharmaceutical/drug industry. When finding out if a new drug will work or not, there is a delicate balance of risk-benefit or risk-performance. Same concept, just different terminology being used. For risk assessment, either not taking the drug or taking too much of the drug will not be in the best interest of the patient. Too little or not at all the patient dies because the disease progresses. If the patient takes too much of the drug, given the side effects, the patient dies. The key performance indicator or benefit is finding the right target dosage of the drug which effectively keeps the patient alive and gets better or at least not any worse.

Another example, one that I share somewhat reluctantly because some people may take offense but I think it is an effective example, the Ten Commandments. I actually have posted this earlier in a blog post as an example if one is interested in looking at this in more detail (May 2022). With the Ten Commandments, think of "Thou Shalt not Kill" as a risk assessment rule and "Thou Shall not Steal" as a key performance indicator. Obviously the consequences of the first are much greater than the second where one is literally stealing someone's life, which is the underlying structure of the relationship between risk assessment and key performance indicators.

So let's delve into this relationship of performance and risk mitigation based upon the above examples and see how they are all tied together. Risk mitigation (Do No Harm) is sort of the book ends of the relationship, too much or too little is not a good thing, while key performance (Do Good) is somewhere in between balancing effectiveness with efficiency and finding the right balance of rules and recommended standards (The essence of the [1]Theory of Regulatory Compliance). Remember I am addressing regulatory compliance data and not social science data in general although it would be interesting to see how this relationship of performance and risk assessment plays out in the larger context of the social sciences. I have a funny feeling that many relationships of social science variables are more nonlinear than linear in nature.

How are risk assessment and key performance indicators determined? Risk assessment rules are generally determined by expert opinion and group consensus either using or not using a Likert type Scale (**Stepping Stones to Caring for Our Children** and**Caring for Our Children Basics** are examples). Key performance indicators are determined from actual data, generally regulatory compliance history utilizing a regulatory compliance statistical methodology that results in the rule's predictive ability (the statistical methodology is highlighted on this website in the publications section as well as on the **National Association for Regulatory**

Administration's (NARA) website [2]https://www.naralicensing.org/key-indicators)(***ASPE's Thirteen Quality Indicators*** and the ***Early Childhood Program Quality Indicators Scale*** are examples (see previous blog posts on all these)). From a licensing measurement perspective, risk assessment rules are generally always in regulatory compliance because the rules place clients at such great risk; while key performance indicators do not place clients at high risk as with risk assessment rules, generally have some non-compliance, just enough to distinguish between the high performers and the mediocre performers.

This relationship is made possible because of the regulatory compliance theory of diminishing returns/the ceiling effect between regulatory compliance and program quality where we are really forced to look for a paradigm shift when it comes to licensing and program monitoring. The "One Size Fits All" a very absolute approach needs to be replaced with a more relative approach, such as "Differential Monitoring" and once this paradigm shift is made it naturally leads us to identifying risk assessment rules and key performance indicator rules. It really changes our frame of reference in establishing a proper balance between regulatory compliance and program quality standards.

To summarize, too few or too many rules are not a good outcome, it is finding the proper balance of the "right rules", finding that balance between effectiveness and efficiency, between risk mitigation and optimun performance. Let me leave you with this statement as an algorithm where TRC = Theory of Regulatory Compliance; RA = Risk Assessment; KI = Key Performance Indicator; RC = Regulatory Compliance; and PQ = Program Quality:

TRC = RA + KI => RC + PQ

1. https://regsci-ojs-tamu.tdl.org/regsci/article/view/108
2. https://www.naralicensing.org/key-indicators

1.6.4 Balancing "Doing No Harm" with "Doing Good": The Tale of Two Tools (2023-06-07 06:25)

In my previous RIKINotes Blog Post, I talked about the risk assessment and key performance indicator continuum at a theoretical, research, and licensing/regulatory compliance measurement level. In this post, I want to present that continuum but at a more practical level

demonstrating how the continuum can be played out via a monitoring approach utilizing two assessment tools: ***Caring for Our Children Basics: CFOCB*** (risk assessment) and ***Child Care Quality Indicator Scale: CCQIS*** (key performance indicators).

These tools are attached here: ***CFOCB*** and its accompanying checklist, and the ***CCQIS.***

[1]ACF CFOCB[2]Download

[3]ACF CFOCB Tool[4]Download

[5]CCQIS for Parents[6]Download

1. https://drfiene.files.wordpress.com/2021/05/acf-cfocb.pdf
2. https://drfiene.files.wordpress.com/2021/05/acf-cfocb.pdf
3. https://drfiene.files.wordpress.com/2021/05/acf-cfocb-tool.pdf
4. https://drfiene.files.wordpress.com/2021/05/acf-cfocb-tool.pdf
5. https://drfiene.files.wordpress.com/2023/06/ccqis-for-parents.pdf
6. https://drfiene.files.wordpress.com/2023/06/ccqis-for-parents.pdf

1.6.5   CLEAR: Council on Licensure, Enforcement and Regulation - Big Data Webinar
   (2023-06-07 09:28)

Here is the slide deck for the CLEAR: Council on Licensure, Enforcement and Regulation - How regulatory agencies are using Big Data to predict non-compliance webinar that Mark Parker and I will be doing today.

[1]CLEAR Webinar 2023 - Big Data[2]Download

1. https://drfiene.files.wordpress.com/2023/06/clear-webinar-2023-big-data.pdf
2. https://drfiene.files.wordpress.com/2023/06/clear-webinar-2023-big-data.pdf

1.6.6 National Center on Early Childhood Quality Assurance (NCECQA) Summer Webinars (2023-06-09 14:14)

The National Center on Early Childhood Quality Assurance (NCECQA) is pleased to invite you and your staff to join the following two opportunities for the remainder of the 2023 year.

These sessions are intended for licensing and license-exempt administrators, staff and applicable partners that would benefit from these opportunities to learn, hear from, and share information with peers on topics facing the licensing field.

Please see information below for dates, times, topics, and registration links. Each session is 90 minutes, and we encourage you to register now to get these events on your calendar.

Once you register, you will receive a confirmation email. Be sure to save the invitation to your calendar. It is also best to join these meetings from your laptop versus phone.

A reminder email will be sent prior to each session to each *registered* participant.

We encourage you to pass this information along to anyone in your agency and other partners that you believe would benefit from the community of practice and the professional development session.

Licensing Community of Practice:

August 29, 2023

1:00 – 2:30 pm ET

Topic: The Role of Licensing in Early Care and Education

Registration: [1]https://www.zoomgov.com/meeting/register/v JItf-uqrT4pHz0NXtvWfnLJmtOkG69LKU4

The LCOP session will include content on The Role of Licensing In Early Care and Education. Dr. Kelly Maxwell, Senior Research Scientist, from Child Trends, will be a special guest presenter.

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There will be opportunities to hear from your peers in small group conversations following the presentation.

Professional Development Session:

September 7, 2023

1:00 – 2:30 pm ET

Topic: Human Care Regulation theories of Monitoring and Innovations in Licensing

Registration: [2]https://www.zoomgov.com/meeting/register/v JItdOutpzMjGcqK-oVDlp2hC0QYF3zaJME

Dr. Richard Fiene, from the RIKI Institute, will present on theories of monitoring in the human care regulation field. The State of Tennessee will present on innovative approaches to monitoring blending licensing and QRIS. A certificate of attendance will be given to participants who attended the meeting. This session does not include small group discussions.

Please register now for these events to get them on your calendar.

⬛ National Center on Early Childhood Quality Assurance, ICF
1902 Reston Metro Plaza, Reston, VA 20190, USA
Phone: 877-296-2250
Email: [3]QualityAssuranceCenter@ecetta.infoWebsite: [4]http://childcareta.acf.hhs.gov

1. `https://www.zoomgov.com/meeting/register/vJItf-uqrT4pHz0NXtvWfnLJmtOkG69LKU4`
2. `https://www.zoomgov.com/meeting/register/vJItdOutpzMjGcqK-oVDlp2hC0QYF3zaJME`
3. `mailto:QualityAssuranceCenter@ecetta.info`
4. `http://childcareta.acf.hhs.gov/`

1.6.7   The Saskatchewan Reports and Respective Data Bases (2023-06-12 18:07)

Listed below are the Saskatchewan Reports for differential monitoring, risk assessment, and licensing & quality indicators. Also listed are the codebooks for each of the reports generated

so that regulatory scientists and licensing researchers can see the structure of the data bases for licensing key indicators (KIM), risk assessment rules (RAM), validation studies of licensing key indicators and risk assessment rules (VAL), and quality indicators validation study (PQI).

[1]-SK Reports[2]Download

[3]KIM Codebook[4]Download

[5]RAM Codebook[6]Download

[7]VAL Codebook[8]Download

[9]PQI Codebook[10]Download

1. https://drfiene.files.wordpress.com/2023/06/sk-reports.pdf
2. https://drfiene.files.wordpress.com/2023/06/sk-reports.pdf
3. https://drfiene.files.wordpress.com/2023/06/kim-codebook.pdf
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9. https://drfiene.files.wordpress.com/2023/06/pqi-codebook.pdf
10. https://drfiene.files.wordpress.com/2023/06/pqi-codebook.pdf

1.6.8 Revisiting the Risk Assessment and the Key Indicator Matrices (2023-06-12 18:37)

There are two other blog posts on the risk assessment (RAM) and key indicator (KIM) matrices posted last year and the year before demonstrating differences and similarities. In this post, there is an attempt to build upon the previous posts and to enhance some of these differences and similarities. Let's start with a narrative description followed by a chart/matrix comparison.

Risk Assessment (RAM) is generally depicted as a 3 x 3 matrix (pictured below) with risk on one axis and prevalence on the other axis; while Key Indicators (KIM) is generally depicted as a 2 x 2 matrix in which one axis measures individual rule compliance and the other axis measures overall regulatory compliance or compliance history. RAM deals with individual rules with a weight while KIM deals with aggregate rules and high and low regulatory compliance. RAM rules are heavily weighted while KIM rules are medium weighted. RAM is hardly ever out of compliance while KIM has a good deal of non compliance to distinguish the high compliant group from the low compliant group. RAM uses likert scale and means; KIM uses correlational analyses and prediction. RAM is expert opinion while KIM is data driven.

RAM/**KIM** Matrix: *Risk Assessment* and **Key Indicators**

High Risk/High Prevalence High Risk/Med Prevalence *High Risk/Low Prevalence*
Med Risk/High Prevalence **Med Risk/Med Prevalence** Med Risk/Low Prevalence
Low Risk/High Prevalence Low Risk/Med Prevalence Low Risk/Low Prevalence
3x3 Matrix Demonstrating Relationships between **KIM** and *RAM*

In the above 3 x 3 Matrix: Risk x Prevalence are listed across the axis, in which *RAM* is preventing high risk, high prevalence but in reality *RAM rules* are very low prevalence, low non-compliance. **KIM rules** are usually med risk and prevalence.

The above matrix and narrative provides additional enhancements to the differences and similarities between risk assessment and key indicator rules. As one can see, there are some basic differences but at the same time there is a deep common structure that underlies both. These are important attributes to consider before using these statistical methodologies as part of a differential monitoring approach. But the bottom line when using either RAM or KIM, or RAM+KIM, all RAM and KIM rules must be in compliance at all times. Remember it is not about more or less rules in total, it is about compliance with the right rules.

Let's take this to the next step and think about this more broadly and relate it to the larger research literature dealing with businesses. Risk assessment and key performance indicators (KPIs) are two important concepts in business management. Risk assessment is the process of identifying, evaluating, and managing risks to an organization's objectives. KPIs are metrics that measure an organization's performance against its objectives.

The two concepts are related in that risk assessment can help organizations identify and prioritize risks that could impact their KPIs. For example, if an organization's KPI is to increase sales by 10 %, then risk assessment can help the organization identify risks that could prevent it from achieving this goal, such as a competitor launching a new product or a change in

customer behavior.

Once risks have been identified, organizations can develop mitigation strategies to reduce the likelihood or impact of those risks. KPIs can be used to track the effectiveness of these mitigation strategies. For example, if an organization is concerned about a competitor launching a new product, it could track its sales data to see if there has been a decrease in sales since the competitor launched its product.

By integrating risk assessment and KPIs, organizations can improve their ability to identify, manage, and mitigate risks to their objectives. This can help organizations achieve their goals and objectives more effectively.

Here are some examples of how risk assessment and KPIs can be used together:

- A bank might use risk assessment to identify the risks of fraud and theft. The bank could then use KPIs to track the number of fraudulent transactions and the amount of money lost to fraud. This information could be used to develop mitigation strategies, such as implementing new security measures or training employees on how to spot and prevent fraud.

- A manufacturing company might use risk assessment to identify the risks of product recalls and safety incidents. The company could then use KPIs to track the number of product recalls and the number of safety incidents. This information could be used to develop mitigation strategies, such as improving product quality or implementing new safety procedures.

- A retail company might use risk assessment to identify the risks of natural disasters and supply chain disruptions. The company could then use KPIs to track the number of natural disasters that occur in its region and the number of supply chain disruptions that occur. This information could be used to develop mitigation strategies, such as developing contingency plans or building up inventory.

By integrating risk assessment and KPIs, organizations can improve their ability to identify, manage, and mitigate risks to their objectives. This can help organizations achieve their goals and objectives more effectively.

1.6.9 Risk Assessment Matrix Weighting of Regulatory Compliance Scores
(2023-06-13 13:33)

According to the latest Child Care Licensing Study a large number of states utilize a risk assessment strategy in their differential monitoring approach. A side benefit of having developed a risk assessment and weighting of all the rules in a respective set of regulations is using those weights to determine regulatory compliance history scores for each program. Generally regulatory compliance history scores are determined by adding the violations for a particular inspection. When these violations are added up they all have the same weight, a weight of "1". However, rather than adding the violations up this way, if the weights were taken into account for each violation and then applied to the score, it would increase the variability in the data dramatically.

In previous posts, it has been documented that licensing/regulatory compliance data lack a good deal of variability in their respective data distributions. Anyway that additional variability can be added should be undertaken from a statistical point of view. Let me illustrate my point in the following table:

Rules Non-Weighted Weighted
001 1 9
002 1 8
003 1 3
004 1 5
Total 4 25
Comparison of Weighted and Non-Weighted Rules

As one can see from the above table, the use of weights changes the value of each violation significantly in moving it from a value of "1" in that a violation is determined to a weighted violation that ranges from "3 - 9" based upon a likert scale of 1 = "little risk" to 10 = "great deal of risk". For those interested in this enhancement to determining regulatory compliance history, please consult **[1]NARA's Licensing Curriculum and Course** entitled ***Licensing Measurement and Systems*** or contact Dr Fiene at [2]rfiene@naralicensing.org or [3]rfiene@rikinstitute.com.

1. https://www.naralicensing.org/nara-licensing-curriculum
2. mailto:rfiene@naralicensing.org
3. mailto:rfiene@rikinstitute.com

1.6.10 Relationship Amongst Regulatory Compliance Instrument Based Metrics, Monitoring Systems Paradigms, and Licensing Measurement Quality Continuum Graphic and Matrix (2023-06-16 10:49)

Below is a graphic and matrix showing the relationship amongst regulatory compliance/instrument based metrics, monitoring systems paradigms, and the licensing measurement quality continuum as both jpeg and pdf file formats.

[1]

Relationship Amongst Regulatory Compliance Metrics, Monitoring Paradigms, and Licensing Measurement Quality Continuum Graphic and Matrix

The below graphic presents the relationship amongst regulatory compliance metrics, monitoring systems paradigms, and the licensing measurement quality continuum. It demonstrates the inter-relationships amongst the three areas. Refer to the Matrix for the details to each area and refer to *Licensing Measurement and Monitoring Systems: Regulatory science applied to human services Regulatory Administration ehandbook (Fiene, 2023)* for additional details regarding this overall model.

The above graphic shows the linkages while the below matrix shows how significant the *"Ceiling Effect"* is in impacting the monitoring systems paradigms. When it comes to licensing measurement influences, the *"Ceiling Effect"* probably is the most significant influence on licensing and regulatory compliance data distributions when it comes to skewed data, the ease between identifying high versus low performers, and the difficulty in distinguishing between high and full regulatory compliance providers when it comes to program quality differences.

Matrix: Comparing Regulatory Compliance, Quality, and Monitoring Systems Paradigms

Licensing Measurement Quality Continuum -->	Regulatory Compliance Instrument Based Metrics -->	Monitoring Systems Paradigms
Ceiling Effect	Ceiling Effect	Substantial versus monolithic
Do no harm versus do good	Ease between high and low	Do things well vs do no harm
Nominal versus ordinal	Nominal measurement	100 – 0 versus 100 or 0
Structural vs process quality	Moving nominal to ordinal	Program quality vs compliance
Full versus partial compliance	Difficulty between full and high	One size fits all vs differential
Risk versus performance	False negatives	Strength based versus deficit
Rules versus indicators	Dichotomization	Rules are equal vs not equal
Gatekeeper versus enabler	Lack of reliability and validity	QRIS versus licensing
Open versus closed system	Skewed data	Linear versus non-linear
Hard versus soft data	Lack of variance	Formative versus summative

[2]LM-IPM-MS Graphic + Matrix (1) _page-0001[3]Download

[4]LM-IPM-MS Graphic + Matrix (1)[5]Download

1. https://drfiene.files.wordpress.com/2023/06/lm-ipm-ms-graphic-matrix-1_page-0001.jpg
2. https://drfiene.files.wordpress.com/2023/06/lm-ipm-ms-graphic-matrix-1_page-0001.jpg
3. https://drfiene.files.wordpress.com/2023/06/lm-ipm-ms-graphic-matrix-1_page-0001.jpg
4. https://drfiene.files.wordpress.com/2023/06/lm-ipm-ms-graphic-matrix-1.pdf
5. https://drfiene.files.wordpress.com/2023/06/lm-ipm-ms-graphic-matrix-1.pdf

1.6.11 Regulatory Compliance Diminishing Returns/Ceiling Effect Papers (2023-06-17 08:30)

The attached document contains a series of papers dealing with the regulatory compliance diminishing returns/ceiling effect as well as specific mitigation strategies, such as the regulatory compliance scale and program quality indicators. It is written for regulatory scientists from other industries outside of the human services to consider if a "Ceiling Effect" occurs in their respective industry.

[1]The RC Ceiling Effect Papers[2]Download

1. https://drfiene.files.wordpress.com/2023/06/the-rc-ceiling-effect-papers.pdf
2. https://drfiene.files.wordpress.com/2023/06/the-rc-ceiling-effect-papers.pdf

1.6.12 Regulatory Compliance Scale (RCS) Revisited (2023-06-17 18:33)

The Regulatory Compliance Scale (RCS) was originally posted on this RIKINotes Blog in January of 2022 and has received many visits, reads and downloads since that time. It is one of the most popular posts on the blog, especially with researchers from the Philippines.

It is being revisited because now that it has time to be tested and retested in more recent studies its usefulness is readily apparent. Before it being proposed in 2022, there were basically two ways to document regulatory compliance historical data either by counting up the number of violations or by stating that the provide of service was either in or out

of compliance. The first approach was very discrete and basically a frequency count while the second was an all or none determination. The problem with both was that they did not work very well. Either approach did not really discriminate well amongst the differences in programs. That is the reason for proposing the Regulatory Compliance Scale (RCS).

The Regulatory Compliance Scale (RCS) is based upon a sound theoretical framework that is consistent in how licensing decisions and groupings are done in regulatory administration. Programs are in full regulatory compliance (0 violations), substantial regulatory compliance (1-3 violations), mediocre regulatory compliance (4-9 violations), or very low regulatory compliance (10+ violations). None of the violations are either risk rules or key indicator rules. This scaling fits with regulatory science and licensing research and theory. The other thing about the RCS is that it works really well in utilizing this scale instead of the all or none determination, or the frequency count approach as highlighted above. The latest study conducted in the Province of Saskatchewan clearly demonstrated its superiority over the other two approaches.

The hope is for the RCS to be further tested by regulatory scientists and licensing researchers in the human services and in other industries as well to determine if its scaling holds up in other venues. It is recommended that jurisdictions should attempt the three approaches as outlined above and see which is the most effective and efficient.

1.6.13 Risk Assessment and Key Indicator Matrices Decision Theory and Revised Algorithms to deal with False Negatives (2023-06-18 14:27)

Risk Assessment and Key Indicator methodologies are two approaches utilized in differential monitoring systems for generating an abbreviated inspection by only looking at a core set of rules based upon statistical predictor or risk assessment algorithms. In this post the matrices (pictured below) utilized to generate these core sets of rules are depicted and with a matrix that determines their respective validation status based upon subsequent studies.

The first matrix (KIM Matrix) deals with the Key Indicator Methodology (KIM) and demonstrates how key indicator rules are determined by measuring each potential rule and comparing it to the regulatory compliance history for the respective set of all rules for a given jurisdiction in which the programs are grouped into either a high (Full or substantial regulatory compliance with all rules) or low compliant groups (several or more violations of rules). From the matrix, it is clear that for a rule to become an indicator rule, there needs to be a very high correlation between the rule being in compliance with the high group and out of compliance with the low group. It is only when this occurs that the rule will distinguish between high and low compliance and be a predictor rule. The other two cells should occur less frequently but there will be some occurrences when these do occur and when they do, these rules will not make the

threshold of becoming indicator rules. So Key Indicator Predictor Rules increase performance by predicting overall regulatory compliance.

The second matrix (RAM Matrix) deals with the Risk Assessment Methodology (RAM) and demonstrates how risk assessment rules are determined by measuring each potential rule by the amount of risk of morbidity or mortality a client is placed in because of non-compliance with the specific rule and how likely will this occur. As one can see, the cell which contains high risk rules and they are likely to occur would be included on the risk assessment tool. All the other cells are color coded in decreasing risk and likelihood categories and a jurisdiction can determine the appropriate thresholds. More risk rules would be included for a risk aversive approach while less risk rules would be included for a more lenient approach or because the number of key indicator rules are sufficient to insure the health and safety of the clients being served. So Risk Assessment Rules decrease risk to clients but are not predictive rules of overall regulatory compliance.

The last matrix (KIM/RAM Validation Matrix) is used after the KIM and RAM tools are actually used to validate that they are working as intended. KIM should be statistically predicting over-all compliance with all the rules (Rules in Compliance cell), while RAM should be mitigating risk in the program by always having the high risk rules in compliance (also Rules in Compliance cell). Part of the KIM validation strategy is that the opposite should also be occurring in that when the KIM tool has indicator rules out of compliance, it should statistically predict rules out of compliance with other rules (the Rules Out of Compliance cell). Something that can occur but needs to be eliminated are the false negatives in which the KIM is in compliance but there is non-compliance detected elsewhere in the rules. When full compliance is used for the high compliant group in the KIM Matrix, this eliminates this from happening. But if substantial compliance is used as the criterion for the high compliant group, then this can become problematic. If substantial compliance is used as the threshold for the high compliant group, a multiplier needs to be applied to rule out the likelihood of false negatives (please see the blog post on this algorithm adjustment posted back in January of this year or look at the description provided below the matrices). False positives are possible also, but are not of overall concern from a safety point of view but are a concern from a psychometric standpoint and additional research needs to be done to determine the cause.

Hopefully this post helps licensing administrators, licensing researchers, and regulatory scientists to see the logic behind the differential monitoring methodologies of key indicator and risk assessment and how best to take advantage of both.

[1]

KIM Matrix

KIM Generator	High Compliant Group	Low Compliant Group
Rule In Compliance	Yes: OK	No
Rule Out of Compliance	No	Yes: OK

RAM Matrix

High Risk/High Likely	High Risk/Med Likely	High Risk/Low Likely
Med Risk/High Likely	Med Risk/Med Likely	Med Risk/Low Likely
Low Risk/High Likely	Low Risk/Med Likely	Low Risk/Low Likely

KIM/RAM Validation Matrix

KIM/RAM Validator	Rules In Compliance	Rules Out of Compliance
KIM/RAM In Compliance	Yes/Yes: OK KIM/RAM	Yes/No: False Negative
KIM/RAM Out Compliance	No/Yes: False Positive	No/No: OK KIM

[2]

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Over the past decade in doing research on the Regulatory Compliance Key Indicator Metric (RCKIm) it has become very clear that false negatives needed to be controlled for because of their potential to increase morbidity and mortality. When dealing with regulatory compliance and full compliance as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIm)(see matrix below), false negatives could be either eliminated or reduced to the point of no concern.

However, in the event that substantial compliance rather than full compliance is used as the threshold for the high grouping variable in the 2 x 2 Regulatory Compliance Key Indicator Matrix (RCKIm) this becomes a problem again. There is the need to introduce a weighting factor. In utilizing the RCKIm, the following equation/algorithm is used to produce the Fiene Coefficient (FC):

$$FC = ((A)(D)) - ((B)(C)) / sqrt (WXYZ)$$

This RCKIm needs to be revised/updated to the following in order to take into account the need to again eliminate false negatives being generated by the results of the equation/algorithm; this can be accomplished by cubing B:

$$FC^* = ((A)(D)) - ((B^3)(C)) / sqrt (WXYZ)$$

By this simple adjustment to cube (B) it will basically eliminate the use of any results in which a false negative occurs when substantial compliance is determined. The table below displays the variables of the Regulatory Compliance Key Indicator Matrix (RCKIm).

RCKIm	High RC Group	RC Low Group	Totals
KI In Compliance	A	B^3	Y
KI Violations	C	D	Z
Totals	W	X	

In the above examples, FC can be used when the High RC Group is at full regulatory compliance, but FC* needs to be used when the High RC Group is including substantial as well as full regulatory compliance. By using both equations/algorithms, it better deals with the results of the Regulatory Compliance Theory of Diminishing Returns.

The results should clearly show that only positive (+) coefficients will become Regulatory Compliance Key Indicators versus those rules that do not show any relationship to overall regulatory compliance (0), but now the negative (-) coefficients will more clearly show when any false negatives appear and clearly not include them as Regulatory Compliance Key Indicators. This is a major improvement in the Regulatory Compliance Key Indicator methodology which clearly demonstrates the differences in the results. It provides a gateway in those regulatory compliance data distributions where substantial regulatory compliance is heavily present while full regulatory compliance is not. This could become a problem as the regulatory science field moves forward with the use of the Regulatory Compliance Theory of Diminishing Returns.

1. https://drfiene.files.wordpress.com/2023/06/kimram-matrices.jpg
2. https://drfiene.files.wordpress.com/2023/06/rckim-nara_page-0001.jpg

1.7 July

1.7.1 Could object permanence be a solution to quantum physics and psychology related to consciousness? (2023-07-08 14:20)

It is possible that object permanence could be a solution to quantum physics and psychology related to consciousness, but there is no scientific consensus on this yet. Some physicists believe that the concept of object permanence could help to explain the phenomenon of wave function collapse, which is a key concept in quantum mechanics. Wave function collapse is the process by which a quantum particle's wave function, which represents all possible states of the particle, collapses into a single state when it is observed. Some physicists believe that this collapse is caused by the conscious observer, and that the concept of object permanence could help to explain how this happens.

In psychology, object permanence is the ability to know that objects continue to exist even when they are not visible. This ability develops in children around the age of 7 months, and it is thought to be a key milestone in cognitive development. Some psychologists believe that object permanence could be related to consciousness, and that the ability to understand that objects exist even when they are not visible is a fundamental aspect of consciousness.

However, there is no scientific consensus on whether or not object permanence is related to consciousness, or whether or not it could help to explain wave function collapse. More research is needed to explore this possibility.

Here are some of the arguments for and against the idea that object permanence could be a solution to quantum physics and psychology related to consciousness:

Arguments in favor:

- The concept of object permanence is closely related to the idea of wave function collapse. Both concepts involve the idea that something can exist in multiple states at the same time, and that it is only when it is observed that it collapses into a single state.

- The ability to understand that objects exist even when they are not visible is a fundamental aspect of consciousness. If object permanence is related to consciousness, then it is possible that it could also be related to wave function collapse.

Arguments against:

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- There is no scientific consensus on whether or not object permanence is related to consciousness.

- Wave function collapse is a very complex phenomenon, and it is not clear how object permanence could explain it.

- There are other possible explanations for wave function collapse, such as the idea that it is caused by the environment.

Overall, the idea that object permanence could be a solution to quantum physics and psychology related to consciousness is an intriguing one, but there is no scientific consensus on this yet. More research is needed to explore this possibility.

1.7.2 National Association for Regulatory Administration (NARA) Key Indicator Presentation in Minnesota (2023-07-13 14:23)

Here is a powerpoint presentation that NARA consultants did in Minnesota for stakeholders that is an excellent summary of the Key Indicator Methodology and how it can be used as part of state of Minnesota Department of Human Services Child Care Regulatory Modernization Project.

[1]nara-stakeholder-presentation-nov-22 _tcm1053-545244[2]Download

1. `https://drfiene.files.wordpress.com/2023/07/nara-stakeholder-presentation-nov-22_tcm1053-545244.pdf`
2. `https://drfiene.files.wordpress.com/2023/07/nara-stakeholder-presentation-nov-22_tcm1053-545244.pdf`

1.7.3 Shroud of Turin (2023-07-14 15:20)

Here is an announcement regarding **ASSIST: Association of Scientists and Scholars International for the Shroud of Turin** more than 40 years ago. It is an interesting read about the research that was being done in and around that time frame.

[1]Shroud of Turin[2]Download

1. https://drfiene.files.wordpress.com/2023/07/shroud-of-turin.pdf
2. https://drfiene.files.wordpress.com/2023/07/shroud-of-turin.pdf

1.7.4 "Do No Harm" Risk Mitigation in Making Licensing Decisions with Differential Monitoring Approaches (2023-07-16 08:52)

When it comes to licensing measurement and monitoring systems, risk assessment is the driving force in making licensing decisions, remembering the mantra: "***Do No Harm***". There have been several posts giving examples in how one does this with risk assessment and key indicator methodologies which are the predominant approaches to differential monitoring. These methodologies are derived by two very different mathematical models, one based upon Likert scaling and weighting; the other based on predictive scaling and regulatory compliance history. However, what they have in common is a basic risk aversion.

With risk assessment rules, the selection process via a weighting methodology is critical in selecting those rules that place individuals at greatest risk of harm, and then making certain that these rules are always in regulatory compliance. With predictive rules, the selection process is through regulatory compliance history in general as well as with each individual rule. The key here is to make certain that the effect size is sufficiently large so that there are no false negatives.

The licensing decision process needs to ensure at all times that there is no regulatory non-compliance with the risk assessment rules and that there are no false negatives where general regulatory non-compliance is found with some other rule when the predictive rules are all in-compliance. In order to have an effective and efficient differential monitoring approach both these conditions must be met for the licensing system to work as it is intended with abbreviated inspection reviews. It is only by having this in place will a licensing agency feel confident that the necessary risk mitigation has been implemented in making licensing decisions.

1.7.5 Licensing Measurement and Monitoring Systems Relationship: How Regulatory Science can inform Human Services Regulatory Administration (2023-07-17 07:35)

In a previous RIKINotes post, a matrix was presented which demonstrated how licensing measurement and monitoring systems were related at a micro level. In this post, a more

macro level or theoretical level will be presented.

As stated in previous posts as well, licensing measurement is very different from other social science measurements in that it is a very skewed data distribution and not normally distributed. And when regulatory compliance results are compared to program quality results a clear "ceiling effect" is present. This has been documented in several previous posts and in the licensing measurement research literature (please see the **Selected Publications** web page for several examples from Georgia, Saskatchewan, Washington, and Head Start). Also see the ehandbook: ***Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory Administration*** which contains additional details about this relationship.

These results from licensing measurement influence how best to design and implement a monitoring system. Because of these results, differential monitoring was proposed as an alternative to the existing paradigm of "One Size Fits All" monitoring. Differential monitoring which led to abbreviated licensing inspection reviews via risk assessment or key indicator methodological approaches were based upon specific risk aversion strategies employing mathematical models of weighting and prediction as outlined in the previous RIKINotes post.

As the earlier post presented the micro aspects of the relationship between licensing measurement and monitoring systems, this post presents the macro or theoretical aspects of this relationship for licensing researchers/scholars, regulatory scientists and licensing administrators to think about. Licensing measurement and monitoring systems are clearly driven by several regulatory science concepts, such as, the ceiling effect/diminishing returns, to do no harm, skewed data, and nominally based data. All these have an impact on human services regulatory administration and what an efficient and effective licensing system should look like.

1.7.6 Licensing Measurement and Monitoring Systems Word Cloud (2023-07-18 08:31)

Here is a word cloud generated from the licensing measurement and monitoring systems matrix which was posted last month. It really focuses on the key terms from that matrix as word clouds do.

It should come as no surprise that the concepts emphasized in the previously posted licensing measurement and monitoring systems matrix are the ones that appear the most prevalent in

the work cloud (ceiling effect, do no harm, and rule; followed by false negative, licensing measurement quality continuum, monitoring systems paradigms, lack of variance and reliability and regulatory compliance instrument).

[1]

Licensing Measurement and Monitoring Systems Word Cloud

1. https://drfiene.files.wordpress.com/2023/07/wordcloud-lms.png

1.7.7 A 50-Year Journey from a Research Psychologist to a Regulatory Scientist (2023-07-22 10:42)

Here is a post describing a journey of moving from a research psychologist to a regulatory scientist that I thought some psychology students might find interesting as they enter the

field of psychology.

[1]A 50 Year Journey from a Research Psychologist to a Regulato[2]Download

1. `https://drfiene.files.wordpress.com/2023/07/a-50-year-journey-from-a-research-psychologist-to-a-regulato`
`.pdf`
2. `https://drfiene.files.wordpress.com/2023/07/a-50-year-journey-from-a-research-psychologist-to-a-regulato`
`.pdf`

1.7.8   World Forum Foundation Child Impact Initiative (2023-07-27 11:35)

[1]

27.07.2023

Dear Professor Fiene,

Re: Early Childhood Quality Indicators Project

Thank you for registering your project, 'Early Childhood Quality Indicators Project' under the Child Impact Initiative. The World Forum Foundation's Working Group on Children's Rights is pleased to recognize the ways your efforts contribute to a better world for children.

We are confident that your work will positively impact children in your community and that by working together, we can create a global movement that transforms our world, one local project at a time.

As a Recognized Project of the Child Impact Initiative, your project will be listed in our official register, and you are granted permission to use the attached badge for the duration of your project.

We look forward to staying in contact, following your progress, and hopefully seeing you at the next World Forum on Early Care and Education.

Kind regards,

Prof Karen Graham
Initiative Lead
Child Impact Initiative
World Forum Working Group
on Children's Rights

Mark Elliott
Executive Director

World Forum Foundation
for Early Care and Education

7700 A Street | Lincoln, Nebraska 68510-4206 | worldforumfoundation.org

1. https://drfiene.files.wordpress.com/2023/07/letter.jpg

1.8 August

1.8.1 Fall 2023 Webinars on Licensing/Regulatory Compliance Measurement and Monitoring Systems (2023-08-02 08:17)

Here is the proposed slide deck for the Fall 2023 webinars on licensing/regulatory compliance measurement and monitoring systems to be offered at the Licensing Seminar for the National Association for Regulatory Administration (NARA) and the National Center for Early Childhood Quality Assurance. These slides summarize the key points in the ebook ***Licensing Measurement and Monitoring Systems: Regulatory Science Applied to Human Services Regulatory Administration*** which is the textbook for the NARA Licensing Curriculum course on Licensing Measurement and Systems (The ebook is available on ([1]NARA Key Indicators).

[2]NARA[3]Download

1. https://www.naralicensing.org/key-indicators
2. https://drfiene.files.wordpress.com/2023/08/nara.pdf
3. https://drfiene.files.wordpress.com/2023/08/nara.pdf

1.8.2 NARA Annual Licensing Seminar: Licensing Measurement and Monitoring Systems Presentation (2023-08-04 18:55)

[1]
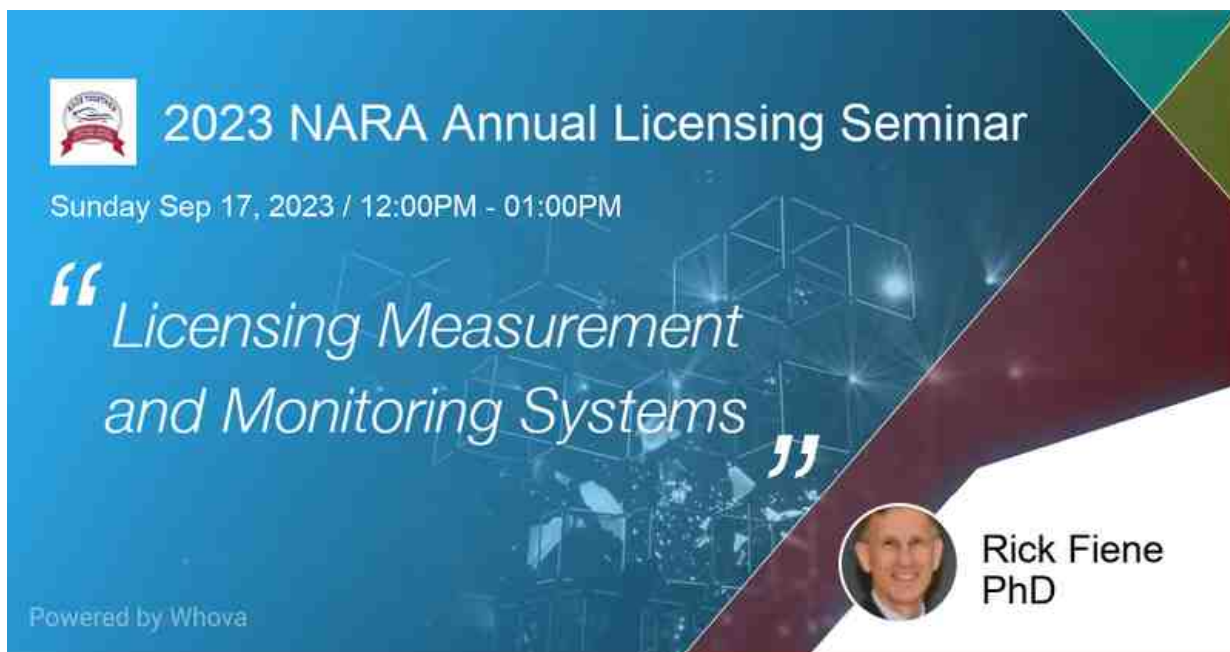
[2]
licensing-measurement-and-monitoring-systems-fiene[3]Download

1. `https://drfiene.files.wordpress.com/2023/08/nara-presentation.png`
2. `https://drfiene.files.wordpress.com/2023/09/licensing-measurement-and-monitoring-systems-fiene.mp4`
3. `https://drfiene.files.wordpress.com/2023/09/licensing-measurement-and-monitoring-systems-fiene.mp4`

1.8.3 Three Interesting Publications from Canada, Hawaii, and Rand on Selected Child Care Quality (2023-08-06 18:47)

Three publications on child care quality that are interesting approaches to research. The first one is from Rand Corporation proposing a second generation of QRIS for early care and education programs:

[1]QRIS Second Generation[2]Download

This second publication is from Canada and provides an interesting best practices framework for child care licensing:

[3]Framework for Child Care Licensing in Canada[4]Download

The last publication is a dissertation utilizing child care quality in Hawaii as the backdrop:

[5]Child Care Quality in Hawaii Dissertation[6]Download

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1. https://drfiene.files.wordpress.com/2023/08/qris-second-generation.pdf
2. https://drfiene.files.wordpress.com/2023/08/qris-second-generation.pdf
3. https://drfiene.files.wordpress.com/2023/08/framework-for-child-care-licensing-in-canada.pdf
4. https://drfiene.files.wordpress.com/2023/08/framework-for-child-care-licensing-in-canada.pdf
5. https://drfiene.files.wordpress.com/2023/08/child-care-quality-in-hawaii-dissertation.pdf
6. https://drfiene.files.wordpress.com/2023/08/child-care-quality-in-hawaii-dissertation.pdf

1.8.4 A Proposed Licensing and Quality Scale for the Human Services and Early Care & Education (2023-08-16 10:42)

Previous posts have introduced the Regulatory Compliance Scale (RCS), in this post, based upon the latest regulatory science research, this RCS can be expanded to a more comprehensive and all inclusive Licensing and Quality Scale (LQS) which will seven components related to licensing the program quality.

The seven components are the following: the Regulatory Compliance Scale, risk assessment rules, key indicator rules, quality indicator standards, complaints about the facility, key indicator criteria being satisfied, and overall regulatory compliance history.

The Regulatory Compliance Scale (RCS) is a Likert type scale that has 1 - 7 scaling where 7 = full regulatory compliance (no rule violations); 5 = substantial regulatory compliance (1-2 rule violations); 3 = moderate regulatory compliance (3-9 rule violations); and 1 = low regulatory compliance (10+ rule violations). The RCS is based upon 40 years of research and the corresponding international regulatory compliance and quality databases.

Risk Assessment Rules (RAR) are those rules which have been determined to place children at greatest risk for mortality/morbidity. These identified rules are generally always in full regulatory compliance.

Key Indicator Rules (KIR) are those rules that are statistically predictive of overall regulatory compliance with all rules. These identified rules are generally in the mid-range of regulatory compliance and are very predictive between distinguishing those high quality programs vs those that are not.

Quality Indicator Standards (QIS) are those standards that are statistically predictive of overall program quality on various dimensions such as staffing, curriculum, parental involvement,

and teacher behaviors in the classroom.

Complaints can be any indications that there are issues at the specific facility that a concerned individual is reporting to the state licensing agency which require follow up and an abbreviated inspection review.

Key Indicator Criteria are the specific criteria which make programs eligible for a Key Indicator Abbreviated Inspection. Examples of Key Indicator Criteria are the following: no change in director, less than 10 % enrollment change, less than 20 % staff turnover, no change in corporate sponsorship, etc...

And lastly, Compliance History should either demonstrate a very low level of non-compliance or a constant regulatory compliance improvement over time.

LQS = RCS + RAR + KIR + QIS + Complaints + KI Criteria + Compliance History

The RCS should have a score either at a 7 or 5 level, Full or Substantial regulatory compliance.

The RAR should have no violations.

The KIR should have no violations.

The QIS should have a score in the range of 28-36+ on the Quality Scale.

There should be no complaints about the program.

All KI Criteria should have been met.

And the Compliance History should have very few non-compliances and always be improving.

When a program/facility can satisfy all of the above, this would place it at the highest LQS scoring level. If a program/facility cannot meet these various components, the resulting LQS

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score will be lower depending on the respective scores. As has occurred with the RCS, it took a great deal of time to decide upon the scaling and point value based upon years of regulatory compliance data from around the world. The same will be true with the LQS but the hope is that it will not take quite as long to fill in the gaps related to scaling and point values. The more agencies that use the above LQS, the quicker it will be in the development of a corresponding international database.

1.8.5 Four Approaches to Program Monitoring related to Regulatory Compliance and Program Quality Performance in the Human Services (2023-08-18 10:30)

Over the past 40 years, program monitoring has evolved substantially in the human services related to regulatory compliance and program quality performance measures (rules/regulations/standards). In this post, four approaches will be discussed in this evolution: instrument-based, inferential/differential, integrative, and coordinated.

Instrument-based program monitoring (IPM) is based upon tools, instruments, and/or check-lists. It is quantitative in nature where reliability in the collection of data is increased when a data collection protocol is used along with the respective set of rules/regulations/standards. IPM appeared in the 1980's and replaced more of a qualitative, anecdotal, clinical case perspective. Human service agencies, in particular, early care and education programs were growing at a tremendous rate and where the case note approach worked well when there were not many facilities, as these facilities increased it became more difficult to keep up with demand and to utilize the data in making comparisons at the macro level. The case note approach is very effective as a micro, point in time measure; but it is not as effective with a large amount of data measured over time where comparisons need to be made at a macro level.

The IPM approach during the 1980s led to the development of more streamlined and abbre-viated methodologies utilizing risk assessment and key predictor indicators as jurisdictions looked for more cost effective and efficient methods. These methodologies ushered in inferen-tial/differential program monitoring in the 1990s in which abbreviated inspections were done with facilities that demonstrated a history of high compliance with rules/regulations/standards. These methodologies and the inferential/differential approach were endorsed by the National Association for Regulatory Administration (NARA) which helped to disseminate and promulgate them. NARA and the Research Institute for Key Indicators (RIKI)(the original developer of the key indicator & risk assessment methodologies and the differential monitoring approach) entered into an exclusive partnership in 2015 for the future development and dissemination of differential monitoring which had taken on increased significance because of its inclusion in the re-authorization of the Child Care and Development Block Grant (CCDBG) legislation in 2014. Differential monitoring has been highlighted in several federal/national publications.

The key indicator methodology eventually led to the development of quality key indicators in addition to licensing key indicators and with this new development, it ushered in a more integrative program monitoring approach that demonstrated a more balanced monitoring of both regulatory compliance and quality services. This initiative really started with the introduction of Quality Rating and Improvement Systems (QRIS) at the turn of the century but it really got moving as key indicators were being identified in both licensing and quality in the 2020s. Many states and jurisdictions are interested in the approach although it still has a long way to go for full implementation. IPM and differential monitoring approaches are the dominant program monitoring systems being utilized by most jurisdictions at this point.

Another monitoring approach developed alongside Integrative Program Monitoring is called Coordinated Monitoring. This approach emphasized the need to better coordinate monitoring efforts across the various regulatory and quality initiatives that were springing up in many jurisdictions. This emphasis was very evident at the federal level where the problems of coordination across program areas was most evident.

This post provides a brief introduction into how human service program monitoring has changed over the past four decades. For those who may be interested in exploring this in greater depth, the following ehandbook should provide additional guidance: ***Licensing Measurement and Monitoring Systems***, available on the NARA website: [1]https://www.naralicensing.org/key-indicators

1. https://www.naralicensing.org/key-indicators

1.8.6 Key Indicator Classification Matrix and Sensitivity Analyses (2023-08-18 10:50)

Here is a 2017 display of a classification matrix and sensitivity analysis validating the Licensing Key Indicator Methodology. For additional information regarding this validation study, please go to the NARA: National Association for Regulatory Administration's website https://www.naralicensing.org/key-indicators:

[1]

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Classification Matrix & Sensitivity Analysis for Validating Licensing Key indicator Systems (Fiene, 2017)

	1	2	3	5	7	8	10	Comments
A	1.00	1.00	1.00	0.00	0.00	1.00	1.00	Perfect
B	0.52	0.52	0.52	0.48	0.48	0.52	0.04	Random
C	0.71	0.96	0.94	0.04	0.29	0.84	0.70	False (-)
D	0.94	0.78	0.71	0.22	0.06	0.81	0.70	False (+)
E	------	0.00	0.00	1.00	------	0.00	------	False +100%
F	0.00	0.00	0.00	1.00	1.00	0.00	-1.00	False+-100
H	0.45	0.46	0.40	0.54	0.55	0.46	-0.08	Random

Measures:
1 = Sensitivity $TPR = TP / (TP + FN)$
2 = Specificity $SPC = TN / (FP + TN)$
3 = Precision $PPV = TP / (TP + FP)$
5 = False Positive $FPR = FP / (FP + TN)$
7 = False Negative $FNR = FN / (FN + TP)$
8 = Accuracy $ACC = (TP + TN) (P + N)$
10 = Correlation $((TP)(TN)) - ((FP)(FN)) / SQRT((TP + FP)(TP + FN)(TN + FP)(TN + FN))$

PP = Predicted Positive = CI+
PN = Predicted Negaive = CI-
TP= True Positive = KI+
TN = True Negative =KI-

	TRUE POSITIVE (TP)(KI+)	TRUE NEGATIVE (TN)(KI-)
PREDICTED POSITIVE (PP)(CI+)	++	+-
PREDICTED NEGATIVE (PN)(CI-)	-+	--

CI+/CI-/KI+/KI:
A = 25/0/0/25 – Perfect match between CI and KI.
B = 13/12/12/13 – Random matching between CI and KI.
C = 17/7/1/25 – KI+ x CI- (False-)
D = 17/1/7/25 – KI- x CI+ (False+)
E = 0/0/50/0 – KI- x CI+ unlikely.
F = 0/25/25/0 - False + & - 100% unlikely
H = 20/24/30/26 – Random matching between CI and KI.

[2]classification-matrix-sensitivity-analysis[3]Download

1. https://drfiene.files.wordpress.com/2023/08/classification-matrix-sensitivity-analysis_page-0001.jpg
2. https://drfiene.files.wordpress.com/2023/08/classification-matrix-sensitivity-analysis.pdf
3. https://drfiene.files.wordpress.com/2023/08/classification-matrix-sensitivity-analysis.pdf

1.8.7 Two Journeys, one National, one State, utilizing the Key Indicator Methodology
(2023-08-20 09:34)

Two different journeys utilizing the key indicator methodology in Kansas and Head Start.

[1]klis-nara-ppt-2014[2]Download

[3]ohs-hski-summary-of-hski-analyses1[4]Download

1. `https://drfiene.files.wordpress.com/2023/08/klis-nara-ppt-2014.pdf`
2. `https://drfiene.files.wordpress.com/2023/08/klis-nara-ppt-2014.pdf`
3. `https://drfiene.files.wordpress.com/2023/08/ohs-hski-summary-of-hski-analyses1.pdf`
4. `https://drfiene.files.wordpress.com/2023/08/ohs-hski-summary-of-hski-analyses1.pdf`

1.8.8 The Need for Health and Safety Standards More Now Then Ever
(2023-08-29 15:07)

I have written about the child care trilemma in this RIKINotes Blog several times, a term coined by Gwen Morgan many years ago, but it's relevance is as significant today as it has been since it was originally proposed by Gwen. The trilemma essentially describes how availability, affordability and quality all intersect and as you adjust one how that adjustment influences the other parts of the equation. I have spent the majority of my professional career on the quality side of the equation. Worked on availability and affordability a bit when I was research director for the Office of Children, Youth and Families in attempting to cost out an effective and efficient delivery system of child care services for families in Pennsylvania. But my focus has been on licensing measurement and monitoring systems over a 50 year career which is still continuing today.

As a research psychologist and a developmental regulatory scientist, I was interested in how licensing and in particular how health and safety standards had an impact on children while attending child care. This interest was ignited because of a long term professional affiliation and collaboration with a pediatrician who also had a keen interest in child care health and safety, Dr Susan Aronson. Sue and I started work together back in 1975 when she and I designed and implemented the **Child Development Program Evaluation System** for the Commonwealth of Pennsylvania. This system influenced our careers tremendously as both Sue and I became advocates for national health and safety standards. Sue focused on the standards while I focused on the program monitoring systems.

In the late 1980's into the early 1990's, the first edition of **Caring for Our Children (CFOC)** was developed and published. Sue played a very significant leadership role in getting **CFOC** to fruition. Since that time **CFOC** has gone through 3 editions (now in its fourth edition) and has been a main research resource for state licensing administrators as they revise and promulgate their own child care rules more locally. It also morphed into a series of publications that helped to streamline and focus its standards based upon risk assessment (**Stepping Stones to Caring for Our Children**) and another document based upon predictable key indicator risk assessment (**Caring for Our Children Basics**). All these documents played key roles in helping to move the needle forward towards voluntary national health and safety standards, especially with publication of **Caring for Our Children Basics** which was encouraged to be used across all early care and education programs by the federal Administration for Children and Families.

Unfortunately, the COVID pandemic has thrown this delicate balancing of the trilemma equation out of balance. The gains made have been lost and there is the definite possibility of things getting worse as American Rescue funding for child care will be terminated as of September 30th of this year. The focus will be on availability followed by affordability and with quality in a distant third place. So the trilemma equation will be severely out of balance. The concern is that there will be a continuing eroding of the health and safety standards that are part of the quality dimension in the trilemma equation. It started during the COVID pandemic as states focused on trying to keep facilities open and operating. Since 2020, there appears to be a continuing concern by child care advocates that this trend of relaxing health and safety standards will continue so not to impede new child care facilities from opening and to keep existing child care facilities from closing. The ultimate result will be that the gatekeeper function of licensing will be reduced if this trend continues and our nation's children will be put at increased risk of morbidity and mortality.

1.9   September

1.9.1   National Center for Early Childhood Quality Assurance Licensing Professional Development: Regulation Theories of Monitoring and Innovations in Licensing
(2023-09-02 06:41)

The slide deck for the presentation this week (September 7th, 2023) on regulation theories of monitoring and innovations in licensing. This is a wonderful series that the National Center sponsors for all licensing professionals throughout the United States.

[1]PD Session on 9.7.23 KDC FINAL8.28.23[2]Download

1. `https://drfiene.files.wordpress.com/2023/09/pd-session-on-9.7.23-kdc-final8.28.23.pdf`
2. `https://drfiene.files.wordpress.com/2023/09/pd-session-on-9.7.23-kdc-final8.28.23.pdf`

1.9.2 NARA Licensing Seminar Update (2023-09-09 09:22)

Here is the latest information provided for the **NARA Licensing Seminar** in which the licensing measurement and monitoring system lectures and ebook are being presented.

[1]

https://videopress.com/v/bE5LgbBO?resizeToParent=true &cover=true &posterUrl=https %3A %2F %2Fvideos.files.wordpress.com %2FbE5LgbBO %2Flicensing-measurement-and-monitoring-systems-fiene _mp4 _std.original.jpg &preloadContent=metadata &useAverage-Color=true

Licensing Measurement and Monitoring Systems Talk

[2]LMS ehandbook 3rd Edition Fiene[3]Download

1. `https://drfiene.files.wordpress.com/2023/09/additional-publicity-nara-talk1.png`
2. `https://drfiene.files.wordpress.com/2023/08/lms-ehandbook-3rd-edition-fiene.pdf`
3. `https://drfiene.files.wordpress.com/2023/08/lms-ehandbook-3rd-edition-fiene.pdf`

1.9.3 Regulatory Compliance Procedural Drift or Lack of Enforcement
(2023-09-12 08:29)

Attached is a very interesting blog post on regulatory compliance procedural drift: ***Why do people violate rules? The concept of procedural drift***. It is an interesting read and makes a great deal of sense from a behavioral psychology point of view. However, as I read it (and I recommend everyone read it first before continuing with this blog post), it got me thinking about the relationship between regulatory compliance and enforcement or the lack thereof. So, when you come to the graphic on page 2 of the attached article, I substituted in my mind "enforcement" for "time" and essentially came up with the relationship that without enforcement you will have regulatory compliance procedural drift in which a new normal is established but at a lower level than originally promulgated. This is an alternate spin or explanation to the original thesis in Dr Dekker's theory related to behavioral psychology. However, I think both explanations could co-exist and there is value added in applying procedural drift to the regulatory science field.

There is an extension to this regulatory compliance procedural drift concept as it relates to the lack of enforcement relationship that does become troubling. I am not as concerned about the establishment of a new normal but what I would be more concerned about is the random application of enforcement which would create a very dangerous situation. For example, let's go back to the article and the scenario of the traffic light. Having established the new normal (three cars going through a red light) which obviously is not in regulatory compliance with the original rule (no cars go through a red light) has been accepted overtime, but it is consistent. It is the *new normal*. However, what happens if this is coupled with random enforcement in which one car passes versus three cars pass and there is no rhyme or reason to this determination. Regulatory compliance would bottom out (fewer cars would follow the rule because it is constantly changing) and the outcome (number of accidents) would increase exponentially.

This re-interpretation of Dr Dekker's procedural drift is provided as an extended regulatory compliance issue when enforcement is either lacking or randomly applied because enforcement of rules in regulatory administration is an important issue. It also would be interesting to apply various enforcement strategies to determine their impact on procedural drift. This would be another example of regulatory science being applied to regulatory administration. Procedural drift is an interesting concept and one that does need further exploration as it

relates to regulatory compliance. One area I want to explore in greater detail is its relationship to the regulatory compliance theory of diminishing returns and the ceiling/plateauing effect observed in regulatory compliance data when compared to program quality.

[1]-Why do people violate rules _ The concept of procedural drift[2]Download

1. `https://drfiene.files.wordpress.com/2023/09/why-do-people-violate-rules_-the-concept-of-procedural-drift-.pdf`
2. `https://drfiene.files.wordpress.com/2023/09/why-do-people-violate-rules_-the-concept-of-procedural-drift-.pdf`

1.9.4 About RIKI: Research Institute for Key Indicators Data Laboratory at Penn State University (2023-09-12 14:34)

I wanted to provide some background information about the Research Institute for Key Indicators Data Laboratory at Penn State University to many of you who might be new to the RIKI website blog. The focus of the institute is to do licensing and regulatory administration research utilizing the principles drawn from the relatively new regulatory science field in licensing measurement and monitoring systems as it relates to the human services. You will find a RIKINotes blog (250 posts and growing) and Selected Publications/Presentations/Tools (200+) on the website. Everything is downloadable in pdf format and it is all free. It may help you in your licensing job.

The institute is affiliated with the Edna Bennett Pierce Prevention Research Center at Penn State University; the National Association for Regulatory Administration; and Results for America.

Please feel free to download any materials you feel will help you in your efforts to improve services for your children and families that you serve. And please do not hesitate to contact me if you have questions about any of the materials or if you have questions related to licensing measurement and monitoring systems at rfiene@rikinstitute.com. Also, please feel free to share anything you get with your colleagues in your respective agencies if you think they may find the information useful.

Thank you, Rick Fiene.

1.9.5 Integrated and Differential Monitoring Matrix: The Best of Both Worlds
(2023-09-14 11:01)

Presented below is a proposed matrix depicting the relationship of integrated monitoring (IM) and differential monitoring (DM). Both integrated monitoring and differential monitoring have been discussed separately in previous posts. This 2 x 2 matrix provides a visualization of how the two approaches potentially intersect and can be used in tandem. Just as a reminder, differential monitoring involves doing an abbreviated inspection instead of a full licensing inspection utilizing either a risk assessment or a key indicator predictor methodology. Integrated monitoring is the infusion of quality elements into a given set of rules or regulations, most likely through the use of ***Caring for Our Children***.

The 2 x 2 matrix provides four possibilities: A = Regulatory Compliance rules which results in a full inspection; B = Program Quality standards which results in a full inspection; C = Regulatory Compliance rules which results in an abbreviated inspection; and D = Program Quality standards which results in an abbreviated inspection. The essence of any model should be its relevance and hopefully its elegance. The below 2 x 2 matrix is relevant because the two monitoring approaches are the most salient ways of conducting inspections for human services regulatory administration. But hopefully it is also elegant in its simplicity and direct modeling, that we will need to see if it resonates with licensing administrators & researchers as well as regulatory scientists.

This matrix should help licensing administrators think through the appropriate use of these various approaches and what it means when combining them. Differential monitoring is an encouraged approach via CCDBG/CCDF, integrated monitoring is too new to make a determination regarding its use. I think it is the next evolution of program monitoring related to regulatory science and administration by providing a balance and continuum along the quality domain with regulatory compliance/licensing as the foundation of this continuum. **TRLECE: The Role of Licensing in Early Care and Education** has developed a wonderful research brief on program monitoring which highlights how states are using differential monitoring that I highly recommend ([1]The Report).

Integrated Monitoring (IM)
Program Quality Regulatory Compliance Program Quality
Differential Monitoring (DM) Full Inspection *A B*
Abbreviated Inspection *C D*
IM x DM Matrix

Also, you may want to consult ***Licensing Measurement and Monitoring Systems: Reg-***

ulatory Science Applied to Human Services Regulatory Administration which has a chapter about integrated monitoring ([2]Licensing Measurement and Monitoring Systems ebook).

1. `https://www.acf.hhs.gov/sites/default/files/documents/opre/TRLECE-Licensing%20Monitoring%20Practices-FINAL%204-28-23.pdf`

2. `https://drfiene.files.wordpress.com/2023/09/lms-ehandbook-3rd-edition-fiene1.pdf`

1.9.6 The Importance of the Theory of Regulatory Compliance as it relates to Licensing Measurement and Monitoring Systems (2023-09-20 14:54)

This RIKINotes Post will provide the latest thinking and research related to the Regulatory Compliance Theory of Diminishing Returns and how it influences licensing measurement and monitoring systems in the human services, in particular early care and education. Some information has appeared in previous posts over the past couple of years but this post will consolidate these findings with the most recent findings related to the theory.

The theory of regulatory compliance has had a tremendous impact on human services licensing measurement and monitoring systems when taken to its logical conclusion which is that there is no significant difference in the level of quality in programs in substantial versus full compliance with a given set of early care and education rules. However, the theory does provide support for the ability to distinguish levels of program quality in low regulatory compliance performers and those in substantial regulatory compliance. There is now empirical evidence from 5 rather large studies conducted across the USA and Canada both within states and provinces as well at the national level in the USA.

From a public policy point of view, the theory opens up a new way of thinking about how best to monitor which is addressed in the next paragraph by moving from a "one size fits all" to one that is more targeted to the regulatory compliance needs of the provider of services. An approach that focuses on those programs that are struggling to meet all rules in providing them with additional resources and guidance while at the same time doing abbreviated reviews of the top performers and getting out of their way because they have a history of high regulatory compliance with all rules. The theory provides a better balance of "do no harm" and "do good" by infusing quality into rules and by mitigating risk to children while enhancing their program's performance.

Because of this above relationship between program quality and regulatory compliance, it ushered in differential monitoring, an abbreviated form of program monitoring which led to the risk assessment rule and key indicator rule methodologies. The precursor to differential monitoring and providing the methodology to conduct the regulatory compliance studies was instrument based program monitoring.

A by-product of the studies conducted regarding the theory of regulatory compliance made clear that frequency counts (nominal measurement is a real limitation of the data) were not effective without a weighting component which ushered in the concept of a regulatory compliance scale which placed regulatory compliance into buckets of full, substantial, mediocre, and very low regulatory compliance. This ordinal measurement technique is much more effective than having straight frequency counts of violations and is more consistent with licensing theory in which all rules are not created nor administered equally. There is a need to weigh individual rules in order to take this effect into account. The next logical step for a regulatory compliance scale is to apply it to individual rules and not just to the final aggregated regulatory compliance score. There is also the need to build in an exponential component to the weighting protocol in order to increase the variance in the data and increase our ability to distinguish differences in scoring.

With the introduction of utilizing substantial compliance as an equivalent positive regulatory compliance outcome as full regulatory compliance, a potential analytical problem was created with introducing additional false negatives in making licensing decisions in which regulatory compliance was recorded when in reality other areas of non-compliance were present. This was mitigated by a revision to the 2 x 2 Validation Matrix by cubing (^3) the false negative cell in order to essentially eliminate any rule that had any significant false negative values ($FC* = ((A)(D)) - ((B^3)(C)) / sqrt (WXYZ)$. Full regulatory compliance should be able to be used in the majority of cases (the standard 2 x 2 Validation Matrix can be utilized)($FC = ((A)(D)) - ((B)(C)) / sqrt (WXYZ)$ because of the highly skewed data distribution with very little variance (data dichotomization is warranted in this special case); but in those cases in which substantial compliance comes into play, then the 2 x 2 Validation Matrix revision needs to be used.

The last development is the introduction of a 2 x 2 matrix showing how to combine the use of differential monitoring (DM) and integrated monitoring (IM) into a blended approach to program monitoring (this proposed matrix is highlighted in a previous post earlier this month (September 14th)–the DM x IM Matrix). The ultimate goal is the delicate balancing of regulatory compliance and program quality in improving facilities. This should be done in the most effective and efficient way. By combining differential monitoring (efficiency) with integrated monitoring (effectiveness) it may be possible to reach this blended approach to program monitoring.